



‘ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षणप्रसार’ - शिक्षणमहर्षी डॉ. बापूजी साळुंखे

Shri Swami Vivekanand Shikshan Sanstha, Kolhapur's

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA**

TASGAON, Dist. Sangli, Pin- 416 312 ☎ - STD : 02346-250665, 250575 FAX : 250575

● **Affiliated to Shivaji University, Kolhapur** ●

E-mail : san.pdvpm.tas@gmail.com Website : www.pdvpmtasgaon.edu.in

Established Year : June 1962 P. B. No. : 14 Jr. College No. : J22-10-001 Sr. College Code No. :  $\frac{SIAC4}{X}$  Jr.: C-8



NAAC Reaccredited 'B' (2.78)

ISO Certified : 9001:2015

**Shikshanmaharshi  
Dr. Babuji Salunkhe**  
B.A., B.T., D.Lit.  
FOUNDER

**Hon. Chandrakant (Dada) Patil**  
PRESIDENT  
B.Com.  
Ex- Minister of Revenue, Public Works  
Govt. of Maharashtra

**Prin. Abhaykumar Salunkhe**  
M.A.  
CHAIRMAN

**Prin. Mrs. Shubhangi Gawade**  
M.Sc., B.Ed.  
SECRETARY

**Dr. Milind S. Hujare**  
M.Sc., Ph.D.  
PRINCIPAL

Ref.No. : PDVPMT /

Date :

## Criterion III

### Research, Innovations and Extension

#### 3.2.1

**Institute has created Ecosystem  
for Innovations**







INTELLECTUAL  
PROPERTY INDIA

PATENTS | DESIGNS | TRADE MARKS  
GEOGRAPHICAL INDICATIONS



सत्यमेव जयते

क्रमांक : 022111793  
SL No :



भारत सरकार  
GOVERNMENT OF INDIA

पेटेंट कार्यालय  
THE PATENT OFFICE

पेटेंट प्रमाणपत्र  
PATENT CERTIFICATE  
(Rule 74 Of The Patents Rules)

पेटेंट सं. / Patent No. : 358284  
आवेदन सं. / Application No. : 201821013419  
फाइल करने की तारीख / Date of Filing : 09/04/2018  
पेटेंटी / Patentee : 1.MR. KADAM SHUDDHODAN NARHARI 2.DR.  
AMBHORE AJAY NIWRUTTIRAO 3.DR. DAWANE  
BHASKAR SADASHIV

प्रमाणित किया जाता है कि पेटेंटी को उपरोक्त आवेदन में यथाप्रकटित A RAPID PROCESS FOR THE SYNTHESIS OF ORGANIC SULFIDE BY USING IN SITU-GENERATED N-HETERO SULFANYLSUCCINIMIDES AT ROOM TEMPERATURE. नामक आविष्कार के लिए, पेटेंट अधिनियम, १९७० के उपबंधों के अनुसार आज तारीख 9th day of April 2018 से बीस वर्ष की अवधि के लिए पेटेंट अनुदत्त किया गया है।

It is hereby certified that a patent has been granted to the patentee for an invention entitled A RAPID PROCESS FOR THE SYNTHESIS OF ORGANIC SULFIDE BY USING IN SITU-GENERATED N-HETERO SULFANYLSUCCINIMIDES AT ROOM TEMPERATURE. as disclosed in the above mentioned application for the term of 20 years from the 9th day of April 2018 in accordance with the provisions of the Patents Act,1970.



अनुदान की तारीख : 10/02/2021  
Date of Grant :

पेटेंट नियंत्रक  
Controller of Patent

टिप्पणी - इस पेटेंट के नवीकरण के लिए फीस, यदि इसे बनाए रखा जाना है, 9th day of April 2020 को और उसके पश्चात प्रत्येक वर्ष में उसी दिन देय होगी।

Note. - The fees for renewal of this patent, if it is to be maintained will fall / has fallen due on 9th day of April 2020 and on the same day in every year thereafter.



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-ShikashanmaharshiDrBapujisalunkhe

Shri Swami VivekanandShikashanSanstha Kolhapur's  
**Padmabhushan Dr. Vasantodada Patil Mahavidyalaya, Tasgaon, Dist. Sangli**  
416312 (Maharashtra) Phon No.: (02346 - 250665)  
(Affiliated to Shivaji University, Kolhapur)

Date: 04/07/2020

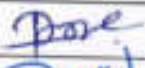

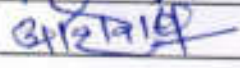
**College Research Committee  
(2020-21)**


**Notice**

All members of research committee are here by informed that there meeting is arranged at 09/07/2020 on 11:00 am in principles office for discussion about following agenda. All should attend the same and cooperate.

Agenda:

1. Conformation of minutes of earlier meeting
2. Planning of research activities of the college and departments
3. Planning for "VasantAvishkar" research computation
4. Planning Internal research grants
5. Any other relevant issues made by the IQAC members

Sr. No.	Members	Notice received
1	Dr. B. T. Kanse	
2	Dr. A. G. Sonawale	
3	Dr. A. S. Wagh	

  
Dr. Ajay N. Ambhore  
Chairman  
Research Committee

  
(Dr. Milind S. Hujare)  
Padmabhushan Dr. Vasantodada Patil  
Mahavidyalaya, Tasgaon, (Sangli)

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416312 (Maharashtra) Phon No.: (02346 - 250665)  
(Affiliated to Shivaji University, Kolhapur)

Date: 12/11/2020



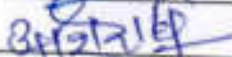
**College Research Committee  
(2020-21)**


**Notice**


All members of research committee are here by informed that there meeting is arranged at 18/11/2020 on 11:30 am in principles office for discussion about following agenda. All should attend the same and cooperate.

**Agenda:**

1. Conformation of minutes of earlier meeting
2. Approval of internal research grant

Sr. No.	Members	Notice received
1	Dr. B. T. Kanse	
2	Dr. A. G. Sonawale	
3	Dr. A. S. Wagh	

  
Dr. Ajay N. Ambhore  
Chairman  
Research Committee

  
(Dr. Milind S. Hujare)  
Principal  
Padmabhushan Dr. Vasantodada Patil  
Mahavidyalaya, Tasgaon, (Sangli)



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Shri Swami VivekanandShikashanSanstha Kolhapur's  
**Padmabhushan Dr. Vasantrodada Patil Mahavidyalaya, Tasgaon, Dist. Sangli**  
416312 (Maharashtra) Phon No.: (02346 - 250665)  
(Affiliated to Shivaji University, Kolhapur)

Date: 02/09/2021




**Research and Innovation Committee  
(2020-21)**


**Notice**

All members of research committee are here by informed that there meeting is arranged on **Friday, 18/11/2020 at 11:30 am** in principles office for discussion about following agenda. All should attend the same and cooperate.

**Agenda:**

1. Conformation of minutes of earlier meeting
2. Planning of research activities of the college and departments
3. Planning for "VasantAvishkar" research computation
4. Planning Internal Research promotion Scheme
6. Planing for new Research Sensitization Scheme of Shivaji University, Kolhapur
5. Any other relevant issues made by the IQAC members

Sr. No.	Members	Notice received
1	Dr. P. B. Teli	
2	Dr. S. K. Shinde	
3	Dr. H. D. Nadaf	

  
Dr. Ajay N. Ambhore  
Chairman  
Research Committee

  
(Dr. Milind S. Hujare)  
Principal  
Padmabhushan Dr. Vasantrodada Patil  
Mahavidyalaya, Tasgaon, (Sangli)

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Shri Swami VivekanandShikashanSanstha Kolhapur's  
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416312 (Maharashtra) Phon No.: (02346 - 250665)  
(Affiliated to Shivaji University, Kolhapur)

Date: 10/07/2019

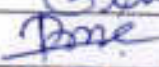

**College Research Committee  
(2019-20)**


**Notice**

All members of research committee are here by informed that there meeting is arranged at 15/07/2019 on 11:30 am in principles office for discussion about following agenda. All should attend the same and cooperate.

Agenda:

1. Conformation of minutes of earlier meeting
2. Planning of research activities of the college and departments
3. Planning for "VasantAvishkar" research computation
4. Planning Internal research grants
5. Any other relevant issues made by the IQAC members

Sr. No.	Members	Notice received
1	Dr. V. Y. Pawar	
2	Dr. B. T. Kanse	
3	Dr. T. K. Badame	

  
Dr. Ajay N. Ambhore  
Chairman  
Research Committee

  
(Dr. Milind S. Hujare)  
Principal  
Padmabhushan Dr. Vasantodada Patil  
Mahavidyalaya, Tasgaon. (Sangli)



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Shri Swami VivekanandShikashanSanstha Kolhapur's  
**Padmabhushan Dr. Vasantrodada Patil Mahavidyalaya, Tasgaon, Dist. Sangli**  
416312 (Maharashtra) Phon No.: (02346 - 250665)  
(Affiliated to Shivaji University, Kolhapur)

Date: 04/11/2019

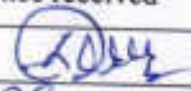


**College Research Committee  
(2019-20)**


**Notice**

All members of research committee are here by informed that there meeting is arranged at 08/11/2020 on 11:00 am in principles office for discussion about following agenda. All should attend the same and cooperate.

Agenda:

1. Conformation of minutes of earlier meeting
2. Approval of internal research grant

Sr. No.	Members	Notice received
1	Dr. V. Y. Pawar	
2	Dr. B. T. Kanse	
3	Dr. A. G. Sonawale	

  
Dr. Ajay N. Ambhore  
Chairman  
Research Committee

  
(Dr. Mihir S. Hujare)  
Principal  
Padmabhushan Dr. Vasantrodada Patil  
Mahavidyalaya, Tasgaon. (Sangli)

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**Padmabhushan Dr. Vasantrodada Patil Mahavidyalaya, Tasgaon, Dist. Sangli**  
416312 (Maharashtra) Phon No.: (02346 - 250665)  
(Affiliated to Shivaji University, Kolhapur)

Date: 12/07/2018


**College Research Committee  
(2018-19)**


**Notice**


All members of research committee are here by informed that there meeting is arranged at 16/07/2018 on 11:00 am in principles office for discussion about following agenda. All should attend the same and cooperate.

Agenda:

1. Conformation of minutes of earlier meeting
2. Planning of research activities of the college and departments
3. Planning for "VasantAvishkar" research computation
4. Planning Internal research grants
5. Any other relevant issues made by the IQAC members

Sr. No.	Members	Notice received
1	Dr. V. Y. Pawar	
2	Dr. S. R. Jadhav	
3	Dr. B. T. Kanse	
4	Dr. T. K. Badame	

  
Dr. Ajay N. Ambhore  
Chairman  
Research Committee

  
(Dr. R. B. Kumbhar)  
Principal  
Padmabhushan Dr. Vasantrodada Patil  
Mahavidyalaya, Tasgaon. (Sangli)



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416312 (Maharashtra) Phon No.: (02346 - 250665)  
(Affiliated to Shivaji University, Kolhapur)

Date: 06/11/2018

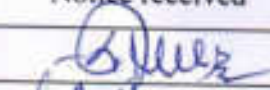

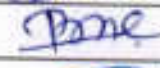

**College Research Committee  
(2018-19)**


**Notice**

All members of research committee are here by informed that there meeting is arranged at 12/11/2020 on 11:30 am in principles office for discussion about following agenda. All should attend the same and cooperate.

Agenda:

1. Conformation of minutes of earlier meeting
2. Approval of internal research grant

Sr. No.	Members	Notice received
1	Dr. V. Y. Pawar	
1	Dr. S. R. Jadhav	
2	Dr. B. T. Kanse	
3	Dr. T. K. Badame	

  
Dr. Ajay N. Ambhore  
Chairman  
Research Committee

  
(Dr. R. R. Kumbhar)  
Padmabhushan Dr. Vasantodada Patil  
Mahavidyalaya, Tasgaon, (Sangli)

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Shri Swami VivekanandShikashanSanstha Kolhapur's  
**Padmabhushan Dr. Vasantodada Patil Mahavidyalaya,**  
**Tasgaon, Dist. Sangli**  
416312 (Maharashtra) Phon No.: (02346 - 250665)  
(Affiliated to Shivaji University, Kolhapur)

Date: 08/07/2017

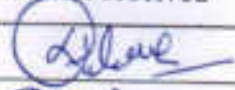



**College Research Committee**  
**(2017-18)**

**Notice**

All members of research committee are here by informed that there meeting is arranged at 10/07/2017 on 11:00 am in principles office for discussion about following agenda. All should attend the same and cooperate.

**Agenda:**

1. Confirmation of minutes of earlier meeting
2. Planning of research activities of the college and departments
3. Strategy revision for "VasantAvishkar" research computation
4. To send proposal for conference/workshop
5. Any other relevant issues made by the IQAC committee

Sr. No.	Members	Notice received
1	Dr. V. Y. Pawar	
2	Dr. B. T. Kanse	
3	Dr. T. K. Badame	
4	Mr. M. D. Patil	

  
Dr. S. R. Jadhav  
Chairman  
Research Committee

  
(Dr. R. R. Kumbhar)  
Principal  
Padmabhushan Dr. Vasantodada Patil  
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416312 (Maharashtra) Phon No.: (02346 - 250665)  
(Affiliated to Shivaji University, Kolhapur)

Date: 30/11/2017

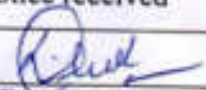
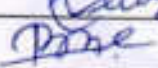


**College Research Committee  
(2017-18)**

**Notice**

All members of research committee are here by informed that there meeting is arranged at 04/12/2017 on 11:30 am in principles office for discussion about following agenda. All should attend the same and cooperate.

Agenda:

1. Conformation of minutes of earlier meeting
2. Approval of internal research grant
3. Approval for VasantAvishkar research computation
4. Approval for IPR seminar
5. Approval for sending students for district level "Avishkar" research computation

Sr. No.	Members	Notice received
1	Dr. V. Y. Pawar	
2	Dr. B. T. Kanse	
3	Dr. T. K. Badame	
4	Dr. A. N. Ambhore	

  
Dr. S. R. Jadhav  
Chairman  
Research Committee

  
(Dr. R. R. Kumbhar)  
Principal  
Padmabhushan Dr. Vasantodada Patil  
Mahavidyalaya, Tasgaon. (Sangli)

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**Padmabhushan Dr. Vasantodada Patil Mahavidyalaya, Tasgaon, Dist. Sangli**  
416312 (Maharashtra) Phon No.: (02346 - 250665)  
(Affiliated to Shivaji University, Kolhapur)

Date: 09/07/2016

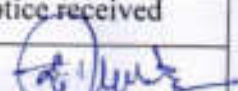



**College Research Committee  
(2016-17)**

**Notice**

All members of research committee are here by informed that there meeting is arranged at 13/07/2016 on 10:30 am in principles office for discussion about following agenda. All should attend the same and cooperate.

**Agenda:**

1. Conformation of minutes of earlier meeting
2. Planning of research activities of the college and departments
3. Strategy revision for VasantAvishkar research computation
4. To send students for district level "Avishkar" research computation
5. To send proposal for conference/workshop
6. Any other relevant issues made by the IQAC committee

Sr. No.	Members	Notice received
1	Dr. V. Y. Pawar	
2	Dr. B. T. Kanse	
3	Dr. S S. Patil	
4	Dr. T. K. Badame	



Dr. C. G. Patil  
Chairman  
Research Committee



(Dr. R. R. Kumbhar)  
Principal  
Padmabhushan Dr. Vasantodada Patil  
Mahavidyalaya, Tasgaon, (Dist. Sangli)

"Dissemination of Education through Knowledge, Science and culture"  
-ShikashanmaharshiDrBapujisalunkhe

Shri Swami VivekanandShikashanSanstha Kolhapur's  
**Padmabhushan Dr. Vasantodada Patil Mahavidyalaya, Tasgaon, Dist. Sangli**  
416312 (Maharashtra) Phon No.: (02346 - 250665)  
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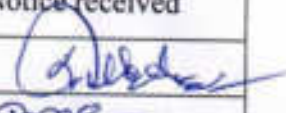
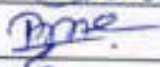


Date: 07/11/2016


**College Research Committee**  
**(2016-17)**  
**Notice**

All members of research committee are here by informed that there meeting is arranged at 10/11/2016 on 10:30 am in principles office for discussion about following agenda. All should attend the same and cooperate.

Agenda:

1. Conformation of minutes of earlier meeting
2. Strategy for "VasantAvishkar" research computation
3. To plan for the preparation of district level "Avishkar" computation
5. To plan for the arrangement of International conference

Sr. No.	Members	Notice received
1	Dr. V. Y. Pawar	
2	Dr. B. T. Kanse	
3	Dr. S. S. Patil	
4	Dr. T. K. Badame	

  
Dr. C. G. Patil  
Chairman  
Research Committee

  
Principal  
(Dr. R. R. Kumbhar)  
Padmabhushan Dr. Vasantodada Patil  
Mahavidyalaya, Tasgaon. (Sangli)





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-Shikashanmaharshi Dr Bapuji salunkhe

**Shri Swami Vivekanand Shikashan Sanstha Kolhapur's**

**Padmabhushan Dr. Vasantodada Patil  
Mahavidyalaya, Tasgaon, Dist. Sangli**

416312 (Maharashtra) Phon No.: (02346 - 250665)  
(Affiliated to Shivaji University, Kolhapur)

**COLLEGE RESEARCH AND INNOVATION COMMITTEE**



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## Minutes of the Meeting of 2016-17 held on 13<sup>th</sup> July 2016

**Venue:** Principals cabin

**Date:** 13/07/2016

**Time:** 10:30 - 11:30

### Agenda of the Meeting:

1. Conformation of minutes of earlier meeting
2. Planning of research activities of the college and departments
3. Strategy revision for “Vasant Avishkar” research computation
4. To send students for district level “Avishkar” research computation
5. Any other relevant issues made by the IQAC committee

### Members Present:

1. Dr. R. R. Kumbhar, Principal
2. Dr. C. G. Patil, Chairman, College Research Committee
3. Dr. V. Y. Pawar, Member
4. Dr. S. S. Patil, Member
4. Dr. B. T. Kanse, Member
5. Dr. T. K. Badame, member

Chairman Dr. C. G. Patil welcomes all members and started discussions on Agenda points.

**Agenda 1:** Conformation of minutes of earlier meeting

**Discussion:** Chairman Dr. C. G. Patil reads the minutes and action taken report on it of earlier meeting.

**Resolution:** All members gave conformation to minutes and expressed satisfaction on action taken report.

**Agenda 2:** Planning of research activities of the college and departments.

**Discussion:** Research committee discusses this agenda and concludes to increase the research publication as well as participation in conference and workshop to increase the research activity by all departments.

**Resolution:** all members gave conformation to increase the research activity



**Agenda 3:** Strategy revision for “Vasant Avishkar” research computation.

**Discussion:** Research committee discusses this agenda and concludes to increase the research project of students from all departments to participate in “Vasant Avishkar” research computation.

**Resolution:** All members gave conformation to increase the research projects of students.

**Agenda 4:** To send students for district level “Avishkar” research computation.


**Discussion:** Research committee decided to send students for district level “Avishkar” research computation.

**Resolution:** All members gave conformation and approved to send the proposal.

**Agenda 5:** Any other relevant issues made by the IQAC committee.

**Discussion:** Research committee discusses the issues made by IQAC committee to conduct various activities under research committee.

**Resolution:** All members gave conformation and approved to conduct different activities by all departments under research committee to increase the research view in students.



( Dr. R. R. Kumbhar )  
**Principal**  
Padmabhushan Dr. Vasantraodada Patil  
Mahavidyalaya, Tasgaon, (Sangli)

## Minutes of the Meeting of 2016-17 held on 10<sup>th</sup> November 2016

**Venue:** Principals cabin

**Date:** 10/11/2016

**Time:** 10:30 - 11:30

### Agenda of the Meeting:

1. Conformation of minutes of earlier meeting
2. Strategy for “Vasant Avishkar” research computation
3. To plan for the preparation of district level “Avishkar” computation

### Members Present:

1. Dr. R. R. Kumbhar, Principal
2. Dr. C. G. Patil, Chairman, College Research Committee
3. Dr. V. Y. Pawar, Member
4. Dr. S. S. Patil, Member
4. Dr. B. T. Kanse, Member
5. Dr. T. K. Badame, member

Chairman Dr. C. G. Patil welcomes all members and started discussions on Agenda points.

**Agenda 1:** Conformation of minutes of earlier meeting

**Discussion:** Chairman Dr. C. G. Patil reads the minutes and action taken report on it of earlier meeting.

**Resolution:** All members gave conformation to minutes and expressed satisfaction on action taken report.

**Agenda 2:** Strategy for “Vasant Avishkar” research computation.

**Discussion:** Research committee discusses this agenda to make a plan for successful arrangement of “Vasant Avishkar” research computation.

**Resolution:** All members gave conformation to for the committee made for the arrangements of “Vasant Avishkar” program.

**Agenda 3:** To plan for the preparation of district level “Avishkar” computation.

**Discussion:** Research committee discusses this agenda and decide plane for the preparation of students research projects for district level “Avishkar” computation.

**Resolution:** All members gave conformation of the formed committees for “Avishkar”.

## Minutes of the Meeting of 2017-18 held on 10<sup>th</sup> July 2017

**Venue:** Principals cabin

**Date:** 10/07/2017

**Time:** 11:00 - 12:00

### Agenda of the Meeting:

1. Conformation of minutes of earlier meeting
2. Planning of research activities of the college and departments
3. Strategy revision for “Vasant Avishkar” research computation
4. To send proposal for conference/workshop
5. Any other relevant issues made by the IQAC committee

### Members Present:

1. Dr. R. R. Kumbhar, Principal
2. Dr. S. R. Jadhav, Chairman, College Research Committee
3. Dr. V. Y. Pawar, Member
4. Dr. B. T. Kanse, Member
5. Dr. T. K. Badame, member
6. Mr. M. D. Patil

Chairman Dr. S. R. Jadhav welcomes all members and started discussions on agenda points.

**Agenda 1:** Conformation of minutes of earlier meeting

**Discussion:** Chairman Dr. S. R. Jadhav reads the minutes and action taken report on it of earlier meeting.

**Resolution:** All members gave conformation to minutes and expressed satisfaction on action taken report.

**Agenda 2:** Planning of research activities of the college and departments.

**Discussion:** Research committee discusses this agenda and concludes to increase the research publication as well as participation in conference and workshop to increase the research activity by all departments.

**Resolution:** All members gave conformation to increase the research activity



**Agenda 3:** Strategy revision for “Vasant Avishkar” research computation.

**Discussion:** Research committee discusses this agenda and concludes to increase the research project of students from all departments to participate in “Vasant Avishkar” research computation.

**Resolution:** All members gave conformation to increase the research projects of students.

**Agenda 4:** To send proposal for conference/workshop.


**Discussion:** Research committee decided to send proposal for conference/workshop.

**Resolution:** All members gave conformation and approved to send the proposal.

**Agenda 5:** Any other relevant issues made by the IQAC committee.

**Discussion:** Research committee discusses the issues made by IQAC committee to conduct various activities under research committee.

**Resolution:** All members gave conformation and approved to conduct different activities by all departments under research committee to increase the research view in students.



( Dr. R. R. Kumbhar )  
**Principal**  
Padmabhushan Dr. Vasantodada Patil  
Mahavidyalaya, Tasgaon, (Sangli)

## Minutes of the Meeting of 2017-18 held on 4<sup>th</sup> December 2017

**Venue:** Principals cabin

**Date:** 04/12/2017

**Time:** 11:30 - 12:30

### Agenda of the Meeting:

1. Conformation of minutes of earlier meeting
2. Strategy for “Vasant Avishkar” research computation
3. To send students for district level “Avishkar” research computation.

### Members Present:

1. Dr. R. R. Kumbhar, Principal
2. Dr. S. R. Jadhav, Chairman, College Research Committee
3. Dr. V. Y. Pawar, Member
4. Dr. B. T. Kanse, Member
5. Dr. T. K. Badame, member
6. Dr. A. N. Ambhore, Member

Chairman Dr. S. R. Jadhav welcomes all members and started discussions on Agenda points.

**Agenda 1:** Conformation of minutes of earlier meeting

**Discussion:** Chairman Dr. S. R. Jadhav reads the minutes and action taken report on it of earlier meeting.

**Resolution:** all members gave conformation to minutes and expressed satisfaction on action taken report.

**Agenda 2:** Strategy for “Vasant Avishkar” research computation.


**Discussion:** Research committee discusses this agenda to make a plan for successful arrangement of “Vasant Avishkar” research computation.

**Resolution:** all members gave conformation to for the committee made for the arrangement of “Vasant Avishkar” program.

**Agenda 3:** To send students for district level “Avishkar” research computation.

**Discussion: Discussion:** Research committee discuss to send students for district level “Avishkar” research computation and decided that the students which gave the numbers in “Vasant avishkar” research computation are send for “Avishkar” computation.

**Resolution:** All members gave conformation to send students to “Avishkar” computation.



( Dr. R. R. Kumbhar )  
**Principal**  
Padmabhushan Dr. Vasandraodada Patil  
Mahavidyalaya, Tasgaon, (Sangli)



## Minutes of the Meeting of 2018-19 held on 16<sup>th</sup> July 2018

**Venue:** Principals cabin

**Date:** 16/07/2018

**Time:** 11:00 - 12:00

### Agenda of the Meeting:

1. Conformation of minutes of earlier meeting
2. Planning of research activities of the college and departments
3. Strategy revision for Vasant Avishkar research computation
4. To send proposal for district level “Avishkar” research computation.
5. To send proposal for conference/workshop
6. Any other relevant issues made by the IQAC committee

### Members Present:

1. Dr. R. R. Kumbhar, Principal
2. Dr. A. N. Ambhore, Chairman, College Research Committee
3. Dr. V. Y. Pawar, Member
4. Dr. S. R. Jadhav, Member
5. Dr. B. T. Kanse, Member
6. Dr. T. K. Badame, member

Chairman, Dr. A. N. Ambhore welcomes all members and started discussions on Agenda points.

**Agenda 1:** Conformation of minutes of earlier meeting

**Discussion:** Chairman, Dr. A. N. Ambhore reads the minutes and action taken report on it of earlier meeting.

**Resolution:** all members gave conformation to minutes and expressed satisfaction on action taken report.

**Agenda 2:** Planning of research activities of the college and departments.

**Discussion:** Research committee discusses this agenda and concludes to increase the research publication as well as participation in conference and workshop to increase the research activity by all departments.

**Resolution:** all members gave conformation to increase the research activity

**Agenda 3:** Strategy revision for “Vasant Avishkar” research computation.

**Discussion:** Research committee discusses this agenda and concludes to increase the research project of students from all departments to participate in “Vasant Avishkar” research computation.

**Resolution:** All members gave conformation to increase the research projects of students.

**Agenda 4:** To send proposal for district level “Avishkar” research computation.

**Discussion:** Research committee decided to send proposal to university for conducting district level “Avishkar” research computation in our college.

**Agenda 5:** To send proposal for conference/workshop.


**Discussion:** Research committee decided to send proposal for conference/workshop.

**Resolution:** All members gave conformation and approved to send the proposal.

**Agenda 6:** Any other relevant issues made by the IQAC committee.

**Discussion:** Research committee discusses the issues made by IQAC committee to conduct various activities under research committee.

**Resolution:** All members gave conformation and approved to conduct different activities by all departments under research committee to increase the research view in students.



( Dr. R. R. Kumbhar )  
**Principal**  
Padmabhushan Dr. Vasantraodada Patil  
Mahavidyalaya, Tasgaon, (Sangli)

## Minutes of the Meeting of 2018-19 held on 12<sup>th</sup> November 2018

**Venue:** Principals cabin

**Date:** 27/09/2011

**Time:** 11:30 - 12:30

### Agenda of the Meeting:

1. Conformation of minutes of earlier meeting
2. Strategy for “Vasant Avishkar” research computation
3. To plan for the arrangement of district level “Avishkar” computation.
4. To plan for the arrangement of multidisciplinary International conference.

### Members Present:

1. Dr. R. R. Kumbhar, Principal
2. Dr. A. N. Ambhore, Chairman, College Research Committee
3. Dr. V. Y. Pawar, Member
3. Dr. S. R. Jadhav, Member
4. Dr. B. T. Kanse, Member
5. Dr. T. K. Badame, member

Chairman, Dr. A. N. Ambhore welcome all members and started discussions on Agenda points.

**Agenda 1:** Conformation of minutes of earlier meeting

**Discussion:** Chairman, Dr. A. N. Ambhore reads the minutes and action taken report on it of earlier meeting.

**Resolution:** all members gave conformation to minutes and expressed satisfaction on action taken report.

**Agenda 2:** Strategy for “Vasant Avishkar” research computation.

**Discussion:** Research committee discusses this agenda to make a plan for successful arrangement of “Vasant Avishkar” research computation.

**Resolution:** all members gave conformation to for the committee made for the arrangement of “Vasant Avishkar” program.

**Agenda 3:** To plan for the arrangement of district level “Avishkar” computation.


**Discussion:** Research committee discusses this agenda and made different committees for the successful arrangement of district level “Avishkar” computation.

**Resolution:** All members gave conformation of the formed committees for “Avishkar”.

**Agenda 4:** To plan for the arrangement of multidisciplinary International conference.

**Discussion:** Research committee discusses this agenda and made different committees for the successful arrangement conference.

**Resolution:** All members gave conformation of the formed committees for conference.



( Dr. R. R. Kumbhar )  
**Principal**  
Padmabhushan Dr. Vasantodada Patil  
Mahavidyalaya, Tasgaon, (Sangli)



## Minutes of the Meeting of 2019-20 held on 15<sup>th</sup> July 2019

**Venue:** Principals cabin

**Date:** 15/07/2019

**Time:** 11:30 - 12:30

### Agenda of the Meeting:

1. Conformation of minutes of earlier meeting
2. Planning of research activities of the college and departments
3. Planning for Vasant Avishkar research computation
4. Strategy for district level “Avishkar” research computation
5. Planning Internal research grants
6. Make a proposal for IPR seminar
7. Any other relevant issues made by the IQAC members

### Members Present:

1. Dr. Milind S. Hujare, Principal
2. Dr. A. N. Ambhore, Chairman, College Research Innovation committee
3. Dr. V. Y. Pawar, Member
4. Dr. B. T. Kanse, Member
5. Dr. T. K. Badame, member

Chairman, Dr. A. N. Ambhore welcome all members and started discussions on Agenda points.

**Agenda 1:** Conformation of minutes of earlier meeting

**Discussion:** Chairman, Dr. A. N. Ambhore reads the minutes and action taken report on it of earlier meeting.

**Resolution:** all members gave conformation to minutes and expressed satisfaction on action taken report.

**Agenda 2:** Planning of research activities of the college and departments.

**Discussion:** Research committee discusses this agenda and concludes to increase the research publication as well as participation in conference and workshop to increase the research activity by all departments.

**Resolution:** all members gave conformation to increase the research activity

**Agenda 3:** Strategy revision for “Vasant Avishkar” research computation.

**Discussion:** Research committee discusses this agenda and concludes to increase the research project of students from all departments to participate in “Vasant Avishkar” research computation.

**Resolution:** All members gave conformation to increase the research projects of students.

**Agenda 4:** Strategy for district level “Avishkar” research computation.

**Discussion:** Research committee decided to make a plan for the departments for the preparation of projects from students to participate in district level “Avishkar” computation.

**Resolution:** All members gave conformation to participate in district level “Avishkar” computation.

**Agenda 5:** Planning internal research grants

**Discussion:** Research committee decided to develop a “Research Promotion Scheme” for increasing and improving research view in teachers and students by generating internal research grant of Rs. 5000/- per project.

**Resolution:** All members gave conformation and approved for Research Promotion Scheme.

**Agenda 6:** Make a proposal for IPR seminar.


**Discussion:** Research committee discusses to conduct a seminar on IPR.

**Resolution:** All members gave conformation for making the proposal of IPR.

**Agenda 7:** Any other relevant issues made by the IQAC committee.

**Discussion:** Research committee discusses the issues made by IQAC committee to conduct various activities under research committee.

**Resolution:** All members gave conformation and approved to conduct different activities by all departments under research committee to increase the research view in students.



Prin. Dr. Milind S. Hujare  
Principal  
Padmabhushan Dr. Vasantodada Patil  
Mahavidyalaya, Tasgaon (Sangli).

## Minutes of the Meeting of 2019-20 held on 8<sup>th</sup> November 2019

**Venue:** Principals cabin

**Date:** 08/11/2019

**Time:** 11:00 - 12:00

### Agenda of the Meeting:

1. Conformation of minutes of earlier meeting
2. Approval of internal research grant
3. Approval for “Vasant Avishkar” research computation
4. Approval for IPR seminar
5. Approval for sending students for district level “Avishkar” research computation

### Members Present:

1. Dr. Milind S. Hujare, Principal
2. Dr. A. N. Ambhore, Chairman, College Research Innovation committee
3. Dr. V. Y. Pawar, Member
4. Dr. B. T. Kanse, Member
5. Dr. A. G. Sonawale, member

Chairman, Dr. A. N. Ambhore welcome all members and started discussions on Agenda points.

**Agenda 1:** Conformation of minutes of earlier meeting

**Discussion:** Chairman, Dr. A. N. Ambhore reads the minutes and action taken report on it of earlier meeting.

**Resolution:** all members gave conformation to minutes and expressed satisfaction on action taken report.

**Agenda 2:** Approval of internal research grant.

**Discussion:** Research committee discusses this agenda and approves to release grant for the research promotion scheme.

**Resolution:** all members gave conformation to release the reant for research promotion scheme.

**Agenda 3:** Approval for Vasant Avishkar research computation.

**Discussion:** Research committee discusses this agenda and made different committees for the successful arrangement “Vasant Avishkar” computation.

**Resolution:** All members gave conformation of the formed committees for “Vasant Avishkar”.

**Agenda 4:** Approval for IPR seminar.


**Discussion:** Research committee discusses this agenda to conduct the IPR seminar by chemistry department.

**Resolution:** All members gave conformation and approve for conducting IPR seminar.

**Agenda 5:** Approval for sending students for district level “Avishkar” research computation.

**Discussion: Discussion:** Research committee discuss to send students for district level “Avishkar” research computation and decided that the students which gave the numbers in “Vasant avishkar” research computation are send for “Avishkar” computation.

**Resolution:** All members gave conformation to send students to “Avishkar” computation.



Prin. Dr. Milind S. Hujare  
Principal  
Padmabhushan Dr. Vasantrodada Patil  
Mahavidyalaya, Tasgaon (Sangli).



## Minutes of the Meeting of 2020-21 held on 9<sup>th</sup> July 2020

**Venue:** Principals cabin

**Date:** 09/07/2020

**Time:** 11:00 - 12:00

### Agenda of the Meeting:

1. Conformation of minutes of earlier meeting
2. Planning of research activities of the college and departments
3. Planning for “Vasant Avishkar” research computation
4. Planning Internal research grants
5. Any other relevant issues made by the IQAC members

### Members Present:

1. Dr. Milind S. Hujare, Principal
2. Dr. A. N. Ambhore, Chairman, College Research Innovation committee
3. Dr. B. T. Kanse, Member
4. Dr. A. G. Sonawale, Member
5. Dr. A. S. Wagh, member

Chairman, Dr. A. N. Ambhore welcome all members and started discussions on Agenda points.

**Agenda 1:** Conformation of minutes of earlier meeting

**Discussion:** Chairman, Dr. A. N. Ambhore reads the minutes and action taken report on it of earlier meeting.

**Resolution:** all members gave conformation to minutes and expressed satisfaction on action taken report.

**Agenda 2:** Planning of research activities of the college and departments.

**Discussion:** Research committee discusses this agenda and concludes to increase the research publication as well as participation in conference and workshop to increase the research activity by all departments.

**Resolution:** all members gave conformation to increase the research activity

**Agenda 3:** Strategy revision for “Vasant Avishkar” research computation.

**Discussion:** Research committee discusses this agenda and concludes to increase the research project of students from all departments to participate in “Vasant Avishkar” research computation.

**Resolution:** All members gave conformation to increase the research projects of students.

**Agenda 4:** Planning internal research grants


**Discussion:** Research committee decided to develop a “Research Promotion Scheme” for increasing and improving research view in teachers and students by generating internal research grant of Rs. 5000/- per project.

**Resolution:** All members gave conformation and approved for Research Promotion Scheme.

**Agenda 5:** Any other relevant issues made by the IQAC committee.

**Discussion:** Research committee discusses the issues made by IQAC committee to conduct various activities under research committee.

**Resolution:** All members gave conformation and approved to conduct different activities by all departments under research committee to increase the research view in students.



Prin. Dr. Milind S. Hujare  
Principal  
Padmabhushan Dr. Vasantodada Patil  
Mahavidyalaya, Tasgaon (Sangli).

## Minutes of the Meeting of 2020-21 held on 18<sup>th</sup> November 2020

**Venue:** Principals cabin

**Date:** 18/11/2020

**Time:** 11:30 - 12:30

### Agenda of the Meeting:

1. Conformation of minutes of earlier meeting
2. Approval of internal research grant
3. Approval for “Vasant Avishkar” research computation

### Members Present:

1. Dr. Milind S. Hujare, Principal
2. Dr. A. N. Ambhore, Chairman, College Research Innovation committee
3. Dr. B. T. Kanse, Member
4. Dr. A. G. Sonavale, Member
5. Dr. A. S. Wagh, member

Chairman, Dr. A. N. Ambhore welcome all members and started discussions on Agenda points.

**Agenda 1:** Conformation of minutes of earlier meeting

**Discussion:** Chairman, Dr. A. N. Ambhore reads the minutes and action taken report on it of earlier meeting.

**Resolution:** all members gave conformation to minutes and expressed satisfaction on action taken report.

**Agenda 2:** Approval of internal research grant.

**Discussion:** Research committee discusses this agenda and approves to release grant for the research promotion scheme.

**Resolution:** all members gave conformation to release the reant for research promotion scheme.

**Agenda 3:** Approval for “Vasant Avishkar” research computation.

**Discussion:** Research committee discusses this agenda and made different committees for the successful arrangement “Vasant Avishkar” computation.

**Resolution:** All members gave conformation of the formed committees for “Vasant Avishkar”.



‘ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षणप्रसार’ - शिक्षणमहर्षी डॉ. बापूजी साळुंखे

Shri Swami Vivekanand Shikshan Sanstha, Kolhapur's

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA**

TASGAON, Dist. Sangli, Pin- 416 312 ☎ - STD : 02346-250665, 250575 FAX : 250575

• Affiliated to Shivaji University, Kolhapur •

E-mail : san.pdvpm.tas@gmail.com Website : www.pdvpmtasgaon.edu.in

Established Year : June 1962 P. B. No. : 14 Jr. College No. : J22-10-001 Sr. College Code No. :  $\frac{SIAC4}{X}$  Jr.: C-8



NAAC Reaccredited 'B' (2.78)

ISO Certified : 9001:2015

**Shikshanmaharshi  
Dr. Bapuji Salunkhe**  
B.A., B.T., D.Lit.  
FOUNDER

**Hon. Chandrakant (Dada) Patil**  
PRESIDENT  
B.Com.  
Ex- Minister of Revenue, Public Works  
Govt. of Maharashtra

**Prin. Abhaykumar Salunkhe**  
M.A.  
CHAIRMAN

**Prin. Mrs. Shubhangi Gawade**  
M.Sc., B.Ed.  
SECRETARY

**Dr. Milind S. Hujare**  
M.Sc., Ph.D.  
PRINCIPAL

Ref.No. : PDVPMT /

Date :

## Criterion III

### Research, Innovations and Extension

#### 3.2.1

**Institute has created Ecosystem  
for Innovations**

**VASANT AVISHKAR**

**Projects of Students**





“Dissemination of Education for Knowledge, Science and Culture”  
-Shikshanmaharashi Dr. Bapuji Salunkhe

**Swami Vivekanand Shikshan Sanstha Kolhapur**

**Padmabhushan Dr. Vasantraodada Patil Mahavidyalaya,  
Tasgaon,  
Sangli-416412, (MS) India**

**Report on**

**VASANT AVISHKAR**

*Research Convention*

**30<sup>th</sup> December 2019**



**2019-20**

“Dissemination of Education for Knowledge, Science and Culture”  
-Shikshanmaharashi Dr. Bapuji Salunkhe

**Swami Vivekanand Shikshan Sanstha Kolhapur**

**Padmabhushan Dr. Vasantraodada Patil Mahavidyalaya,  
Tasgaon, Sangli-416412, (MS) India**

*Organize*

**VASANT AVISHKAR**

➤ <b>Event</b>	: <b>Research computation</b>
➤ <b>Date</b>	: <b>30<sup>th</sup> December 2019</b>
➤ <b>Organizer</b>	: <b>PDVP College Tasgaon</b>
➤ <b>venue</b>	: <b>College Campus</b>

**PARTICIPANT**

<b>Participant</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
<b>Students</b>	31	47	78
<b>Faculty</b>	12	05	17
			95

Innovative research is a search for new business and strategic techniques and methods. They develop and optimize well-known methodologies, enabling the implementation of new and better solutions. Innovative research focuses on creating new ideas, analyzing problems, diagnosing them and identifying their causes.

Accordingly, our college initiating the organization of “Vasant Avishkar” every year to provide a platform to the students from the various groups and extending the helping hands to understand the research attitude and acquiring the scientific knowledge thus transforming

for the cause of development. This will also educate students and teachers to understand their responsibility towards societal development. In this year also, our college was organized the “Vasant Avishkar” research computation to initiate the scientific attitude in students and to express their research ideas.

In this year “Vasant Avishkar” research poster computation was organized on 30<sup>th</sup> December 2019 in college campus. For the inaugural function we invite as a chief guest to **Dr. P. M. Patil Sir**, A.S.C. College, Palus. Also we invite **Dr. Sunil Kamble** SMDBS College, Miraj and **Dr. Sajjan Kamble** ACS College, Palus as an examiner for the same computation. Principal **Dr. Milind Hujare** as a precedent of the program guided the student about the research and informs him how such activities auspice there features. Chief Guest of program Dr. P. M. Patill In his speech said that such event gives the right opportunity to the students at the ground level that leads to forming such a young researchers.

## INAUGURAL FUNCTION



Principal Dr. Milind Hujare sir delivered speech on Inaugural function



Chief Guest Dr. P. M. Patil sir delivered speech on inaugural function



Introductory speech by coordinator Dr. Ajay Ambhore



Felicitation of Chief Guest Dr. P. M. Patil



Felicitation of Guest Dr. Sunil Kamble



Felicitation of Guest Dr. Sunil Kamble



Inauguration of poster presentation



Invited guest with college staff

Introductory speech was delivered by the program coordinator **Dr. Ajay Ambhore**. Total 78 students are participated and present their research poster in this computation. All these research projects are evaluated by the examiners.



Chief Guest and Principal observing the project in the computation



Examiners examine the research projects





**Examiners examine the research projects**



**Vote of thanks by Dr. Amol Sonawale**

After the completion of evaluation process all the examiners handover the result towards our Principal and it was declared to students on the same day. From the result 12 students are selected to participate in district level "Avishkar" organized by Shivaji University, Kolhapur at Balvant College, Vita.

## Photo Gallery





**REGISTRATION**

"University of Education for Knowledge, Science & Culture"  
 विश्वविद्यालय के ज्ञान, विज्ञान और संस्कृति के लिए  
 डॉ. वसुदेव विठ्ठल विश्वविद्यालय कोलकाता

Professorship Dr. Vasudevacharya Path Mahavidyalaya, Targaon, Dist. Sargol

Year: 2019-20

1. CATEGORY: HUMANITIES, LANGUAGE, FINE ARTS, EDUCATION, ETC

No.	Name of Student	Class	Name of Department	Name of Project	Mark No.	Sign
1.1	ANURAG KUMAR S.	B.A. H.	English	Management of Education in India	11/11/19	[Signature]
1.2	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
1.3	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
1.4	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
1.5	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
1.6	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
1.7	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
1.8	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
1.9	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
1.10	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]

"University of Education for Knowledge, Science & Culture"  
 विश्वविद्यालय के ज्ञान, विज्ञान और संस्कृति के लिए  
 डॉ. वसुदेव विठ्ठल विश्वविद्यालय कोलकाता

Professorship Dr. Vasudevacharya Path Mahavidyalaya, Targaon, Dist. Sargol

Year: 2019-20

1. CATEGORY: HUMANITIES, LANGUAGE, FINE ARTS, EDUCATION, ETC

No.	Name of Student	Class	Name of Department	Name of Project	Mark No.	Sign
2.1	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.2	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.3	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.4	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.5	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.6	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.7	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.8	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.9	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.10	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]

"University of Education for Knowledge, Science & Culture"  
 विश्वविद्यालय के ज्ञान, विज्ञान और संस्कृति के लिए  
 डॉ. वसुदेव विठ्ठल विश्वविद्यालय कोलकाता

Professorship Dr. Vasudevacharya Path Mahavidyalaya, Targaon, Dist. Sargol

Year: 2019-20

1. CATEGORY: COMMERCE, MANAGEMENT, LAW, ETC

No.	Name of Student	Class	Name of Department	Name of Project	Mark No.	Sign
2.1	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.2	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.3	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.4	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.5	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.6	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.7	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.8	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.9	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.10	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]

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 डॉ. वसुदेव विठ्ठल विश्वविद्यालय कोलकाता

Professorship Dr. Vasudevacharya Path Mahavidyalaya, Targaon, Dist. Sargol

Year: 2019-20

1. CATEGORY: FORESCIENCE

No.	Name of Student	Class	Name of Department	Name of Project	Mark No.	Sign
2.1	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.2	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.3	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.4	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.5	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.6	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.7	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.8	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.9	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]
2.10	ANURAG KUMAR S.	B.A. H.	English	Education in India	11/11/19	[Signature]

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Puduchikudha Dr. Yashwantrao Chavan Mahavidyalaya, Tasgaon, Dist. Sangli  
Year: 2019-20  
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**3. CATEGORY: PURE SCIENCE**

Sr. No.	Name of Student	Class	Name of Department	Title of Project	MARKS	Rank
1	Pradipal, Dhanraj	B.E	Chem	Application of the uses of various indicators	80/100	1
2	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	75/100	2
3	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	70/100	3
4	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	65/100	4
5	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	60/100	5
6	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	55/100	6
7	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	50/100	7
8	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	45/100	8
9	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	40/100	9
10	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	35/100	10

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Year: 2019-20  
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**4. CATEGORY: AGRICULTURE & ANIMAL HUSBANDRY**

Sr. No.	Name of Student	Class	Name of Department	Title of Project	MARKS	Rank
1	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	80/100	1
2	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	75/100	2
3	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	70/100	3
4	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	65/100	4
5	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	60/100	5
6	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	55/100	6
7	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	50/100	7
8	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	45/100	8
9	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	40/100	9
10	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	35/100	10

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Year: 2019-20  
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**4. CATEGORY: AGRICULTURE & ANIMAL HUSBANDRY**

Sr. No.	Name of Student	Class	Name of Department	Title of Project	MARKS	Rank
1	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	80/100	1
2	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	75/100	2
3	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	70/100	3
4	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	65/100	4
5	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	60/100	5
6	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	55/100	6
7	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	50/100	7
8	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	45/100	8
9	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	40/100	9
10	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	35/100	10

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**5. CATEGORY: ENGINEERING & TECHNOLOGY**

Sr. No.	Name of Student	Class	Name of Department	Title of Project	MARKS	Rank
1	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	80/100	1
2	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	75/100	2
3	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	70/100	3
4	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	65/100	4
5	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	60/100	5
6	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	55/100	6
7	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	50/100	7
8	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	45/100	8
9	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	40/100	9
10	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	35/100	10

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Year: 2019-20  
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**6. CATEGORY: MEDICINE & PHARMACY**

Sr. No.	Name of Student	Class	Name of Department	Title of Project	MARKS	Rank
1	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	80/100	1
2	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	75/100	2
3	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	70/100	3
4	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	65/100	4
5	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	60/100	5
6	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	55/100	6
7	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	50/100	7
8	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	45/100	8
9	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	40/100	9
10	Pradipal, Dhanraj	B.E	Chem	As per the indicator given in the syllabus of Chemistry	35/100	10



अनूदानाच्या अर्थाने सर्व शिक्षण  
वर्षासाठी 2019-2020  
पुणे जिल्हा शासकीय अभियांत्रिकी महाविद्यालय, पुणे  
पदवीधर डॉ. यशवंतराव चवण महाराष्ट्र शासकीय अभियांत्रिकी महाविद्यालय, तासगाव  
Year: 2019-20  
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**Category I: Humanities, language, fine arts, education etc**

Project No.	Name of the Student	Class	Department	Title of the Project	Remarks
1.01	Dhanraj Pradipal	B.A.II	Economics	As per the indicator given in the syllabus of Economics	First
1.02	Kishor Pradipal	B.Com.II	Accounting	As per the indicator given in the syllabus of Accounting	Second
1.03	Uday Pradipal	B.A.II	Political Science	As per the indicator given in the syllabus of Political Science	Third

**Category II: Commerce/Management and law, etc**

Project No.	Name of the Student	Class	Department	Title of the Project	Remarks
2.01	Pradipal Dhanraj	B.Com.II	Commerce	As per the indicator given in the syllabus of Commerce	First
2.02	Pradipal Dhanraj	B.Com.II	Commerce	As per the indicator given in the syllabus of Commerce	Second
2.03	Pradipal Dhanraj	B.Com.II	Commerce	As per the indicator given in the syllabus of Commerce	Third

**Category III: Pure Science**

Project No.	Name of the Student	Class	Department	Title of the Project	Remarks
3.01	Pradipal Dhanraj	B.Sc.II	Chemistry	As per the indicator given in the syllabus of Chemistry	First
3.02	Pradipal Dhanraj	B.Sc.II	Zoology	As per the indicator given in the syllabus of Zoology	Second
3.03	Pradipal Dhanraj	B.Sc.II	Botany	As per the indicator given in the syllabus of Botany	Third

**Category IV: Agriculture & Animal Husbandry**

Project No.	Name of the Student	Class	Department	Title of the Project	Remarks
4.01	Pradipal Dhanraj	B.Sc.II	Zoology	As per the indicator given in the syllabus of Zoology	First
4.02	Pradipal Dhanraj	B.Sc.II	Economics	As per the indicator given in the syllabus of Economics	Second
4.03	Pradipal Dhanraj	B.A.II	Geography	As per the indicator given in the syllabus of Geography	Third

**Category V: Engineering and Technology**

Project No.	Name of the Student	Class	Department	Title of the Project	Remarks
5.01	Pradipal Dhanraj	B.E	Physics	As per the indicator given in the syllabus of Physics	First
5.02	Pradipal Dhanraj	B.E	Physics	As per the indicator given in the syllabus of Physics	Second
5.03	Pradipal Dhanraj	B.E	Physics	As per the indicator given in the syllabus of Physics	Third



**Yamnatiksha 2019-20**  
Date - 01/11/2019

• <b>Coordinator</b>	Dr. Ajay N. Ambhore Program Coordinator
• <b>President</b>	Prin. Dr. Milind S. Hujare
• <b>Chief Guest</b>	Dr. P. M. Patil Act. Chairman and In-charge College, Sakti, Dist. Sangli
• <b>Guest A</b>	Dr. Jyoti Kumbhar Ex-Officio Act. Chairman and In-charge College, Sakti, Dist. Sangli
• <b>Guest B</b>	Dr. Jyoti Kumbhar Ex-Officio SMBB College, Mang. Dist. Sangli
• <b>Yield/Thanks</b>	Dr. A. S. Wagh Member, Research Committee
• <b>Assisting</b>	Dr. A. G. Jadhav Member, Research Committee

**Yamnatiksha 2019-20**  
Date - 01/11/2019

• <b>Registration</b>	9:00 AM to 10:30 AM
• <b>Prize Distribution</b>	10:30 AM to 11:30 AM
• <b>Emergency Prizes</b>	11:30 AM to 11:55 AM
• <b>Prize Examination</b>	12:00 AM to 12:55 PM
• <b>Lunch</b>	1:00 PM to 1:45 PM
• <b>Event</b>	2:00 PM

**Yamnatiksha 2019-20**  
Date - 01/11/2019

**Program Committee**

• <b>Registration Committee</b>	• Dr. A. S. Wagh • Dr. A. G. Jadhav • Dr. M. B. Yekar
• <b>Emergency Prizes Committee</b>	• Dr. V. V. Jadhav • Dr. S. L. Jadhav
• <b>Prize Exam. Committee</b>	• Dr. A. S. Wagh • Dr. A. G. Jadhav
• <b>Assisting Committee</b>	• Dr. A. S. Wagh • Dr. A. G. Jadhav • Dr. M. B. Yekar • Dr. V. V. Jadhav • Dr. S. L. Jadhav

Research Committee Chairman: Dr. Ajay N. Ambhore  
Principal: Dr. Milind S. Hujare



*Ajambhore*

**Dr. Ajay N. Ambhore  
(Coordinator)**

*Milind S. Hujare*  
**Prin. Dr. Milind S. Hujare  
Principal**  
Padmabhushan Dr. Vasantrodada Patil  
Mahavidyalaya, Tasgaon (Sangli).



“Dissemination of Education for Knowledge, Science and Culture”  
-Shikshanmaharashi Dr. Bapuji Salunkhe

**Swami Vivekanand Shikshan Sanstha Kolhapur**

**Padmabhushan Dr. Vasantraodada Patil Mahavidyalaya,  
Tasgaon,  
Sangli-416412, (MS) India**

**Report on**

**VASANT AVISHKAR**

*Research Convention*

**19<sup>th</sup> & 20<sup>th</sup> December 2018**



**2018-19**



“Dissemination of Education for Knowledge, Science and Culture”  
-Shikshanmaharashi Dr. BapujiSalunkhe

**Swami Vivekanand Shikshan Sanstha Kolhapur**

**Padmabhushan Dr. Vasantraodada Patil Mahavidyalaya,  
Tasgaon, Sangli-416412, (MS) India**

*Organize*

**VASANT AVISHKAR**

➤ <i>Event</i>	: <i>Research computation</i>
➤ <i>Date</i>	: <i>19<sup>th</sup> &amp; 20<sup>th</sup> December 2018</i>
➤ <i>Organizer</i>	: <i>PDVP College Tasgaon</i>
➤ <i>venue</i>	: <i>College Campus</i>

**PARTICIPANT**

Participant	Male	Female	Total
<b>Students</b>	78	136	214
<b>Faculty</b>	42	06	48
			262

Research is an outcome basically of the innovative minds in the modern era with the support of well-equipped laboratories and such other infrastructure. If the same is made available by the educational institution at right ages, It will not only stimulate the activities

but will help to identify the student to be groomed further as acclaimed researchers in their respective field.

On this basis, every year our college was organizing the “Vasant Avishkar” research computation to initiate the scientific attitude in students and provide the space to student to express their research ideas.

In this year “Vasant Avishkar” research poster computation was organized on 19<sup>th</sup> and 20<sup>th</sup> December 2018 in college campus. For the inaugural function we invite as a chief guest to Dr. S. T. Salunkhe Sir, Principal, A.S.C. College, Ramanand Nagar. During his speech in said that, right opportunity when made available at the ground level leads to forming such a young research group which can be molded in desire direction by motivating them by their teachers.

## **INAUGURAL FUNCTION**



**Principal Dr. R. R. Kumbhar sir on Inaugural function**



**Chief Guest Dr. S. T. Salunkhe sir delivered speech on inaugural function**



**Introductory speech by co-ordinator Dr. Ajay N. Ambhore on Inaugural function**



**Students and staff on Inaugural function**

Principal Dr. R. R. Kumbhar sir is on precedential chair of the program. In his speech hi said that “Vasant Avishkar” is an interclass computation for the entry of Univerity organized “Avishkar” research computation. Research is not the limited quantity for the university level. But it can be start from college level. The introductory speech was delivered by the program co-ordinator Dr. Ajay N. Ambhore.



**Vote of thanks by Dr. T. K. Badame Sir**



**Inauguration of poster presentation**



**Registration desk**



**Examiners of ‘Vasant Avishkar’**

For this research poster presentation computation total 214 students of the college were participate and presented there invention in front of the examiner. College allotted total 18 examiners to examine the research invention for six categories in first day and 12 examiners for the second day.



**Chief Guest and Principal observing the project in the computation**



**Examiners examine the research projects**



**Examiners examine the research projects**

Finally at evening all the examiners handover the result towards our Principal and it was declared to students in the evening of the forest day. The selected students again represent their research project on second day from which final 12 students from each category were selected which then participate in district level “Avishkar” competition organized by Shivaji University, Kolhapur.

**REGISTRATION**

Sl. No.	Name of the Candidate	Category	Registration No.	Date of Birth
1	...	...	...	...
2	...	...	...	...
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No.	Topic/Title	Year of Submission	Description	Author's Name	Year
17	...	2018	...	...	...
18	...	2018	...	...	...
19	...	2018	...	...	...
20	...	2018	...	...	...
21	...	2018	...	...	...
22	...	2018	...	...	...
23	...	2018	...	...	...
24	...	2018	...	...	...
25	...	2018	...	...	...

No.	Topic/Title	Year of Submission	Description	Author's Name	Year
26	...	2018	...	...	...
27	...	2018	...	...	...
28	...	2018	...	...	...
29	...	2018	...	...	...
30	...	2018	...	...	...
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32	...	2018	...	...	...
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34	...	2018	...	...	...
35	...	2018	...	...	...

**संशोधन प्रश्न**  
**PHYSICAL SCIENCES**  
**A. SCIENCE (PHYSICS)**

No.	Topic/Title	Year of Submission	Description	Author's Name	Year
1	...	2018	...	...	...
2	...	2018	...	...	...
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No.	Topic/Title	Year of Submission	Description	Author's Name	Year
36	...	2018	...	...	...
37	...	2018	...	...	...
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No.	Topic/Title	Year of Submission	Description	Author's Name	Year
51	...	2018	...	...	...
52	...	2018	...	...	...
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55	...	2018	...	...	...
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72	...	2018	...	...	...
73	...	2018	...	...	...
74	...	2018	...	...	...
75	...	2018	...	...	...
76	...	2018	...	...	...
77	...	2018	...	...	...
78	...	2018	...	...	...
79	...	2018	...	...	...
80	...	2018	...	...	...

**संशोधन प्रश्न**  
**PHYSICAL SCIENCES**  
**B. SCIENCE (CHEMISTRY)**

No.	Topic/Title	Year of Submission	Description	Author's Name	Year
36	...	2018	...	...	...
37	...	2018	...	...	...
38	...	2018	...	...	...
39	...	2018	...	...	...
40	...	2018	...	...	...
41	...	2018	...	...	...
42	...	2018	...	...	...
43	...	2018	...	...	...
44	...	2018	...	...	...
45	...	2018	...	...	...
46	...	2018	...	...	...
47	...	2018	...	...	...
48	...	2018	...	...	...
49	...	2018	...	...	...
50	...	2018	...	...	...



No.	Name of Candidate	Name of Supervisor	Title of Project	Mark %	Grade
1	...	...	...	...	...
2	...	...	...	...	...
3	...	...	...	...	...
4	...	...	...	...	...
5	...	...	...	...	...
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8	...	...	...	...	...
9	...	...	...	...	...
10	...	...	...	...	...

**સાચીવાલ્યકાર મહાવિદ્યાલય તાસ્ગણ**

૧. અભ્યાસક્રમના અધ્યક્ષશ્રીના નામ પરથી

No.	Name of Candidate	Name of Supervisor	Title of Project	Mark %	Grade
1	...	...	...	...	...
2	...	...	...	...	...
3	...	...	...	...	...
4	...	...	...	...	...
5	...	...	...	...	...
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8	...	...	...	...	...
9	...	...	...	...	...
10	...	...	...	...	...

No.	Name of Candidate	Name of Supervisor	Title of Project	Mark %	Grade
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2	...	...	...	...	...
3	...	...	...	...	...
4	...	...	...	...	...
5	...	...	...	...	...
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8	...	...	...	...	...
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No.	Name of Candidate	Name of Supervisor	Title of Project	Mark %	Grade
1	...	...	...	...	...
2	...	...	...	...	...
3	...	...	...	...	...
4	...	...	...	...	...
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10	...	...	...	...	...

No.	Name of Candidate	Name of Supervisor	Title of Project	Mark %	Grade
1	...	...	...	...	...
2	...	...	...	...	...
3	...	...	...	...	...
4	...	...	...	...	...
5	...	...	...	...	...
6	...	...	...	...	...
7	...	...	...	...	...
8	...	...	...	...	...
9	...	...	...	...	...
10	...	...	...	...	...

**સાચીવાલ્યકાર મહાવિદ્યાલય તાસ્ગણ**

૧. અભ્યાસક્રમના અધ્યક્ષશ્રીના નામ પરથી

No.	Name of Candidate	Name of Supervisor	Title of Project	Mark %	Grade
1	...	...	...	...	...
2	...	...	...	...	...
3	...	...	...	...	...
4	...	...	...	...	...
5	...	...	...	...	...
6	...	...	...	...	...
7	...	...	...	...	...
8	...	...	...	...	...
9	...	...	...	...	...
10	...	...	...	...	...

YASANTAYIKKAR 2018-19  
P.D.V.P. MAHAVIDYALAYA, TARGAON

1. JALANSHIKHAR, KOLHAPUR

No.	Naam/Title	Category	Post Name	Ref. No.	Age
1.	Dr. Anand Kulkarni	Faculty	Assistant Professor	1/11/19/18	45
2.	Dr. Anand Kulkarni	Faculty	Assistant Professor	1/11/19/18	45
3.	Dr. Anand Kulkarni	Faculty	Assistant Professor	1/11/19/18	45
4.	Dr. Anand Kulkarni	Faculty	Assistant Professor	1/11/19/18	45
5.	Dr. Anand Kulkarni	Faculty	Assistant Professor	1/11/19/18	45
6.	Dr. Anand Kulkarni	Faculty	Assistant Professor	1/11/19/18	45
7.	Dr. Anand Kulkarni	Faculty	Assistant Professor	1/11/19/18	45
8.	Dr. Anand Kulkarni	Faculty	Assistant Professor	1/11/19/18	45
9.	Dr. Anand Kulkarni	Faculty	Assistant Professor	1/11/19/18	45
10.	Dr. Anand Kulkarni	Faculty	Assistant Professor	1/11/19/18	45



Department of Education for Knowledge, Science & Culture  
The Dadasaheb Phalke Sanshodhan Mandal, Targaon  
Padmashubhan Dr. Vasantkrishna Patil Mahavidyalaya, Targaon  
**Yasant Ayikkhar 2018-19**

Date: 18/12/2018

- > Registration -  
8:00 AM to 12:00 AM
- > Poster Arrangement -  
10:00 AM to 12:00 AM
- > Inaugural Function -  
10:30 AM to 11:00 AM
- > Poster Examination:  
11:00 AM to Ongoing
- > Lunch:  
1:00 PM to 2:00 PM
- > Result:  
4:00 PM

Department of Education for Knowledge, Science & Culture  
The Dadasaheb Phalke Sanshodhan Mandal, Targaon  
Padmashubhan Dr. Vasantkrishna Patil Mahavidyalaya,  
Targaon  
**Yasant Ayikkhar 2018-19**

- > Registration Committee:  
1. Prof. V. T. Kulkarni  
2. Prof. K. S. Jadhav  
3. Prof. V. T. Kulkarni
- > Inaugural Function Committee:  
1. Dr. V. T. Kulkarni  
2. Prof. D. S. N. S. Jadhav  
3. Prof. D. S. N. S. Jadhav
- > Poster Examination Committee:  
1. Prof. P. V. Dhad  
2. Prof. A. S. Jadhav
- > Jury:  
1. Dr. R. T. Kulkarni  
2. Prof. K. S. Jadhav  
3. Prof. V. T. Kulkarni
- > Awarding Committee:  
1. Prof. D. S. N. S. Jadhav  
2. Prof. K. S. Jadhav  
3. Dr. S. K. Jadhav  
4. Dr. V. T. Kulkarni  
5. Prof. D. S. N. S. Jadhav  
6. Prof. D. S. N. S. Jadhav

Dr. K. S. Jadhav, J.

**Dr. Ajay N. Ambhore**  
(Coordinator)

**Prin. Dr. Milind S. Hujare**  
Principal  
Padmashubhan Dr. Vasantkrishna Patil  
Mahavidyalaya, Targaon (Songli).



"ज्ञान, विज्ञान आणि सुसंस्कार यासाठी शिक्षणप्रसार" - शिक्षणमहर्षी डॉ. बापूजी साळुंखे

**Shri Swami Vivekanand Shikshan Sansths Kolhapur**

**PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON DIST – SANGLI**  
(Affiliated to Shivaji University, Kolhapur)

**Research Committee**

**“VASANT AVISHKAR” 2017-18**



**Report  
2017-18**

## **“Vasant Avishkar”**

➤ <b>Event</b>	<b>“Vasant Avishkar”</b>
➤ <b>Date</b>	<b>21<sup>st</sup> Dec. 2017</b>
➤ <b>Organizer</b>	<b>Research Committee</b>
➤ <b>Venue</b>	<b>PDVP Mahavidyalaya, Tasgaon</b>

## **“Vasant Avishkar”**

Like the previous year, research committee organize “Vasant Avishkar” research computation as a strategy to participate in district level “Avishkar” research computation for win maximum prizes.

For that purpose research committee invite the research proposal from all departments. For six research categories, total 67 research posters are participated in this event from all departments. All these posters are examined by the college examiner team in first round. In this round total 24 research posters are selected by the committee and send them in the next round.

In second round experts from the other college are appointed to examination of the posters. Students selected for the first round again present their presentation there research idea in front of the expert of second round. In second round, experts select total 12 research posters (two from each category). All these selected research posters are approved to participate in district level “Avishkar” research computation organized by Shivaji University held at Deshbhakt Anadrao Balwantrao Naik Arts & Science College, Chikhali.

We are happy to write that one students of our college, Miss. Poonam Pore dot second prize in district level and selected for university level “Avishkar” research computation.

## Photo Gallery



**Dr. Ajay N. Ambhore**

**Prin. Dr. Milind S. Hujare**  
**Principal**  
Prin. Dr. Vasantasada Patil  
Mahavijaya, Timpain (Sangli).





"ज्ञान, विज्ञान आणि सुसंस्कार यासाठी शिक्षणप्रसार" - शिक्षणमहर्षी डॉ. बापूजी साळुंखे

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MAHAVIDYALAYA, TASGAON DIST – SANGLI**

(Affiliated to Shivaji University, Kolhapur)

**Research Committee**

**“VASANT AVISHKAR” 2016-17**



**Report  
2016-17**

## ***“Vasant Avishkar”***

➤ <b>Event</b>	<b>“Vasant Avishkar” 2016-17</b>
➤ <b>Date</b>	<b>16<sup>st</sup> Oct. 2016</b>
➤ <b>Organizer</b>	<b>Research Committee</b>
➤ <b>Venue</b>	<b>PDVP Mahavidyalaya, Tasagaon.</b>

## **“Vasant Avishkar” 2016-17**

On occasion of Birth Centenary year of late Padmabhushan Dr. Vasantodada Patil, our college decided to start an activity to increase the research attitude in the rural area student and provided a platform to display their research imagination in front of all. on that basis “Vasant Avishkar” activity was created by the college research committee. The main objectives of this activity are to invite the research proposal from the entire department in specific subject and display that in this research program. All these research proposals are evaluated from college committee and then from the expert from other colleges. The best research proposals are then sanctioned to participate in district level “Avishkar: research computation organized by Shivaji University, Kolhapur.




Thus, in educational year 2016-17 in the guidance of Principal Dr. R. R.Kumbhar sir, college research committee organize the “Vasant Avishkar” research computation on 21<sup>st</sup> Oct. 2016 and invite the research proposal from all departments. Near about 108 research posters are participate in this event. all this poster are examined by college expert committee and selected posters are forward to the next round. In the next round examiners from the other colleges,

Dr. P. B. Kale, Dr. V. D. Suryawanshi, SMDBS College, Miraj, evaluate all the posters and select the best one which was approve to participate in

district level “Avishkar” research computation organize by Shivaji University, Kolhapur.

In district level, total 12 research posters was presented in six categories. From which, Mrs. Manisha Kishor Gujar (B.Sc. III, Stat.), and Mrs. Komal Maruti Chavan (B.Sc. III, Chem.) got the first prize and selected for the university level “Avishkar” research computation.

## Photo Gallery

																															
	<p><b>A. Humanities, Languages, Fine Arts, Education etc.</b></p> <p>अ. मानवशास्त्र, भाषा, अतिशय कला, शिक्षण इत्यादी.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sr.No.</th> <th>Title of the Poster</th> <th>Name of Student</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Statistical Analysis of Impact of Driving Vehicles on Health of Drivers</td> <td>Jadhav Utsav S. Nadaf Aslam G.</td> </tr> <tr> <td>2</td> <td>शारीर व वैद्यकीय परिणामे वजनपूरकतेतून प्रभावित होणारे अन्न</td> <td>Patil Pooja Balasa Jadhav Sonali Sanjay</td> </tr> <tr> <td>3</td> <td>Statistical Analysis of Health of New Born Babies &amp; Mother Delivery type</td> <td>Jangale Vaishali N. Waghmare Sweta R.</td> </tr> <tr> <td>4</td> <td>वजन वजन परिणामे वजनपूरकतेतून प्रभावित होणारे अन्न</td> <td>Sarda Vinita Vijay Saharabe Priyanka J.</td> </tr> </tbody> </table>	Sr.No.	Title of the Poster	Name of Student	1	Statistical Analysis of Impact of Driving Vehicles on Health of Drivers	Jadhav Utsav S. Nadaf Aslam G.	2	शारीर व वैद्यकीय परिणामे वजनपूरकतेतून प्रभावित होणारे अन्न	Patil Pooja Balasa Jadhav Sonali Sanjay	3	Statistical Analysis of Health of New Born Babies & Mother Delivery type	Jangale Vaishali N. Waghmare Sweta R.	4	वजन वजन परिणामे वजनपूरकतेतून प्रभावित होणारे अन्न	Sarda Vinita Vijay Saharabe Priyanka J.															
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**C. Pure Science****क. मूलभूत विज्ञान**

Sr.No.	Title of the Poster	Name of Student
1	Preparation of Rayon Thread from Filter paper	Hasbe Suraj A. Harale Rameshchandra Prulhad
2	Use of Ornamental Plant leaves as acid-base indicator	Patil Komal S. Patil Hemlata B.
3	Carbon Sequestration in the Standing trees at P.D.V.P. Campus	Mane Nikita S. Patil Pranibha A.
4	Analysis of Coconut Water	Petkar Shridhar Someshwar Sadakale Tushar Jagannath

**D. Agriculture and Animal Husbandry****ड. शैली आणि पशुसंवर्धन**

Sr.No.	Title of the Poster	Name of Student
1	Effect of Plant Extract on germination of Brassica Seeds	Solankhe Ashwini S. Patil Yogini R.
2	Flowers Life with Food and Water	Pawar Nikita K. Nalawade Anuradha M.
3	Statistical Analysis of Sugarcane Production	Jadhav Resham D. Behar Priya B.
4	Konkan-Marathwada Joint - River Plan...	Jagtap Dipali G. Patil Ratna B.

**E. Engineering and Technology****ई. अभियांत्रिकी व तंत्रज्ञान**

Sr.No.	Title of the Poster	Name of Student
1	Synthesis of Nano Material by Auto combustion method	Bhosale Abhijit Vishnu Edake Akshay Ashok
2	Best from Waste	Shinde Madhuri A. Shinde Mayawati Sambhaji
3	Generation of Electricity with the help of Ar. principle	Mali Akshay Bhaskar Pansit Abhijeet Udaykumar
4	Use of Renewable Resource, Solar Energy	Korade Akshay A. Yadav Gajanan S.

**F. Medicine and Pharmacy****फ. वैद्यक व औषधशास्त्र**

Sr.No.	Title of the Poster	Name of Student
1	Analysis of iron content in vegetable and spices.	Chavan Komal Maruti Chavan Prajakti Mahadev
2	Analysis of Honey	Mali Rupali P. Mali Poojima M.

  
**Dr. Ajay N. Ambhore**

**(Coordinator)**

  
**Prin. Dr. Milind S. Hujare**  
**Principal**  
Padmabhusan D. Viswanathadasa Patil  
Mahavidyalaya, Turpan (Sangli).



NAAC Accredited **A** (2.76)

“ ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षणप्रसार ” – शिक्षणमहर्षी डॉ. बापूजी साबुंबे

Shri Swami Vivekanand Shikshan Sanstha, Kolhapur's

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA**

**TASGAON**, Dist. Sangli, Pin 416 312 ☎ **STD** : 02346- 250 665, 250 575 **FAX** : 250575

• **Affiliated to Shivaji University, Kolhapur** •

ISO - 9001:2015

E-mail: san.pdvpm.tas@gmail.com Website : www.pdvpm.tasgaon.edu.in

• Established Year : June 1962 • P. B. No. : 14 • Jr. College No. : J22-10-001 • Sr. College Code No. :  $\frac{SIACN}{X}$  Jr. : C-8

Shikshanmaharshi  
Dr. Bapuji Salunkhe  
B.A. B.T.D.L.M.  
FOUNDER

Hon. Chandrakant (Dada) Patil  
PRESIDENT B.Com.  
Minister of Revenue, Public Works  
Govt. of Maharashtra

Prin. Abhaykumar Salunkhe  
M.A.  
CHAIRMAN

Prin. Mrs. Shubhangi Gawade  
M.Sc. B.T.D.  
SECRETARY

Dr. Milind S. Hujare  
M.Sc. Ph.D.  
PRINCIPAL

Ref.No. : PDVPMT/

Date : 27/01/2021

To,

Dr. Meghnad G. Joshi

CMD,

Stem Plus Cryopreservation Pvt., Ltd.

Sangli.

**Sub.:** To provide Hands-on Training in Stem Cell Banking.

Sir,

I appreciate your valuable cooperation and support in provide training in Stem Cell Banking to our B. Sc.-III Zoology students. In this academic year (2020-2021) our Zoology Department wants to provide the training to our students at your laboratory. Kindly arrange for the training from 1-02-2021 to 11-02-2021.

Thanking You

  
Principal

Principal

Padmabhushan Dr. Vasantrodada Patil  
Mahavidyalaya, Tasgaon. (Sangli)



Date: 27/01/2021

To,  
The Principal,  
P. D. V. P. Mahavidyalaya,  
Tasgaon.

**Sub:** Permission to organize "Hands- on Training in Stem Cell Banking" at Stem Plus  
Cryopreservation Pvt. Ltd., Sangli.

Respected Sir,

Department of Zoology wish to provide Hands-on Training in Stem Cell Banking at **Stem Plus Cryopreservation Pvt. Ltd., Sangli.** The department has MOU with the said organization. So kindly grant the permission to provide the training from 1-02-2021 to 11-02-2021.

Thanking You

Permission granted  
27/01/2021

Tel PB

**Dr. P. B. Teli**

Training Coordinator

*"Dissemination of Education through Knowledge, Science and Culture"*  
- Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha Kolhapur's  
**Padmabhushan Dr. Vasantrodada Patil Mahavidyalaya, Tasgaon,  
Dist- Sangli.  
In Collaboration with  
Stem Plus Cryopreservation Pvt. Ltd, Sangli**


**Date: 01/2/2021 to 11/2/2021**



**Training Name: Hands-on Training in Stem Cell Banking**

**Time Table**

Sr. No.	Day	Date	Time	Name of the Topic
1.	Monday	1-02-2021	10 to 11.30 am	Introduction to Stem cells
2.	Tuesday	2-02-2021	10 to 11.30 am	Sources of Stem cells
3.	Wednesday	3-02-2021	10 to 11.30 am	Characterization and Potency of Stem cells
4.	Thursday	4-02-2021	10 to 11.30 am	Sources of adult Stem cells
5.	Friday	5-02-2021	12 to 1.30 pm	Umbilical Cord Blood Banking (UCB)
6.	Saturday	6-02-2021	12 to 1.30 pm	Clinical Applications of UCB, Part A
7.	Monday	8-02-2021	10 to 11.30 am	Clinical Applications of UCB, Part B
8.	Tuesday	9-02-2021	10 to 11.30 am	Clinical Applications of UCB, Part C
9.	Wednesday	10-02-2021	10 to 11.30 am	Clinical Applications of UCB, Part D
10.	Thursday	11-02-2021	10 to 11.30 am	Regulatory requirements of UCB

  
**Dr. P. B. Teli**  
Training Coordinator

  
**Principal**  
Padmabhushan Dr. Vasantrodada Patil  
Mahavidyalaya, Tasgaon. (Sangli)

  
**Dr. Meghnad G. Joshi**  
CMD  


"Dissemination of Education through Knowledge, Science and Culture"  
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Shri Swami Vivekanand Shikshan Sanstha Kolhapur's  
**Padmabhushan Dr. Vasantrodada Patil Mahavidyalaya, Tasgaon,**  
**Dist- Sangli.**  
**In Collaboration with**  
**Stem Plus Cryopreservation Pvt. Ltd, Sangli**

Date: 01/2/2021

Time: 10 to 11.30 am

Training Name: Hands-on Training in Stem Cell Banking

Sr. No.	Name of the students	Signature
1.	/Bodake Sakshi Shankar	<i>Bodake</i>
2.	/Erandole Shubhangi Mahadev	<i>Smerandole</i>
3.	/Ghagare Komal Bhairu	<i>Ghagare</i>
4.	/Jadhav Gouri Raghunath	<i>GR Jadhav</i>
5.	/Jamadade Mayuri Vishnu	<i>Jamadade</i>
6.	/Kamble Prachi Vijay	<i>Prachi</i>
7.	/Kamble Shweta Vikas	<i>Shweta</i>
8.	/Mali Aishwarya Abaso	<i>A. Mali</i>
9.	/Mohite Priti Shankar	<i>P. Mohite</i>
10.	Mr. Patil Prasad Kailas	<i>Prati</i>
11.	/Patil Pratiksha Ravsaheb	<i>P. Patil</i>
12.	/Patil Preeti Rajendra	<i>P. R. Patil</i>
13.	/Patil Rupali Parasharam	<i>R. P. Patil</i>
14.	/Patil Shivani Avinash	<i>Shivani</i>
15.	/Pawar Surbhi Rajendra	<i>Surbhi</i>
16.	/Taur Shraddha Kailas	<i>Shraddha</i>
17.	Mr. Jadhav Suhas Shivaji	<i>Suhas</i>
18.	/Thorat Dipti Laxman	<i>D. Thorat</i>

*T. P. B.*  
Dr. P. B. Teli  
Training Coordinator

*Meghnad G. Joshi*  
Dr. Meghnad G. Joshi  
CMD





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**Padmabhushan Dr. Vasantrodada Patil Mahavidyalaya, Tasgaon,  
Dist- Sangli.**  
**In Collaboration with  
Stem Plus Cryopreservation Pvt. Ltd., Sangli**


Date: 02/2/2021

Time: 10 to 11.30 am

Training Name: Hands-on Training in Stem Cell Banking

Sr. No.	Name of the students	Signature
1.	/Bodake Sakshi Shankar	<i>Bodake</i>
2.	/Erandole Shubhangi Mahadev	<i>Sonerrandole</i>
3.	/Ghagare Komal Bhairu	<i>Ghagare</i>
4.	/Jadhav Gouri Raghunath	<i>GRIJadhav</i>
5.	/Jamadade Mayuri Vishnu	<i>Jamadade</i>
6.	/Kamble Prachi Vijay	<i>Prachi</i>
7.	/Kamble Shweta Vikas	<i>Shweta</i>
8.	/Mali Aishwarya Abaso	<i>Mali</i>
9.	/Mohite Priti Shankar	<i>P. Mohite</i>
10.	Mr. Patil Prasad Kailas	<i>Prasad</i>
11.	/Patil Pratiksha Ravsaheb	<i>P. Patil</i>
12.	/Patil Preeti Rajendra	<i>P. R. Patil</i>
13.	/Patil Rupali Parasharam	<i>R. P. Patil</i>
14.	/Patil Shivani Avinash	<i>Shivani</i>
15.	/Pawar Surbhi Rajendra	<i>Surbhi</i>
16.	/Taur Shraddha Kailas	<i>Shraddha</i>
17.	Mr. Jadhav Suhas Shivaji	<i>Suhas</i>
18.	/Thorat Dipti Laxman	<i>Dipti</i>

*Teli*  
Dr. P. B. Teli  
Training Coordinator

*Meghnad G. Joshi*  
Dr. Meghnad G. Joshi  
CMD  


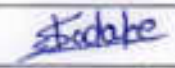




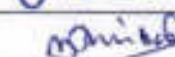






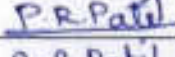
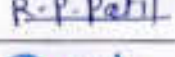




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**Padmabhushan Dr. Vasantrodada Patil Mahavidyalaya, Tasgaon,  
Dist- Sangli.**  
In Collaboration with  
**Stem Plus Cryopreservation Pvt. Ltd., Sangli**

Date: 03/2/2021

Time: 10 to 11.30 am

Training Name: Hands-on Training in Stem Cell Banking

Sr. No.	Name of the students	Signature
1.	/Bodake Sakshi Shankar	
2.	/Erandole Shubhangi Mahadev	
3.	/Ghagare Komal Bhairu	
4.	/Jadhav Gouri Raghunath	
5.	/Jamadade Mayuri Vishnu	
6.	/Kamble Prachi Vijay	
7.	/Kamble Shweta Vikas	
8.	/Mali Aishwarya Abaso	
9.	/Mohite Priti Shankar	
10.	Mr. Patil Prasad Kailas	
11.	/Patil Pratiksha Ravsaheb	
12.	/Patil Preeti Rajendra	
13.	/Patil Rupali Parasharam	
14.	/Patil Shivani Avinash	
15.	/Pawar Surbhi Rajendra	
16.	/Taur Shraddha Kailas	
17.	Mr. Jadhav Suhas Shivaji	
18.	/Thorat Dipti Laxman	

  
Dr. P. B. Teli  
Training Coordinator

  
Dr. Meghnad G. Joshi  
CMD





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Dist- Sangli.**  
**In Collaboration with  
Stem Plus Cryopreservation Pvt. Ltd., Sangli**

Date: 04/2/2021

Time: 10 to 11.30 am

Training Name: Hands-on Training in Stem Cell Banking

Sr. No.	Name of the students	Signature
1.	/Bodake Sakshi Shankar	<i>Bodake</i>
2.	/Erandole Shubhangi Mahadev	<i>Smerandole</i>
3.	/Ghagare Komal Bhairu	<i>Ghagare</i>
4.	/Jadhav Gouri Raghunath	<i>G. Jadhav</i>
5.	/Jamadade Mayuri Vishnu	<i>Jamadade</i>
6.	/Kamble Prachi Vijay	<i>Prachi</i>
7.	/Kamble Shweta Vikas	<i>Kamble</i>
8.	/Mali Aishwarya Abaso	<i>Aishi</i>
9.	/Mohite Priti Shankar	<i>P. Mohite</i>
10.	Mr. Patil Prasad Kailas	<i>P. Prati</i>
11.	/Patil Pratiksha Ravsaheb	<i>P. Patil</i>
12.	/Patil Preeti Rajendra	<i>P. R. Patil</i>
13.	/Patil Rupali Parasharam	<i>R. P. Patil</i>
14.	/Patil Shivani Avinash	<i>S. Patil</i>
15.	/Pawar Surbhi Rajendra	<i>S. Pawar</i>
16.	/Taur Shraddha Kailas	<i>S. Taur</i>
17.	Mr. Jadhav Suhas Shivaji	<i>S. Jadhav</i>
18.	/Thorat Dipti Laxman	<i>D. Thorat</i>

*T. P. B.*  
**Dr. P. B. Teli**  
Training Coordinator

*M. G. Joshi*  
**Dr. Meghnad G. Joshi**  
CMD  





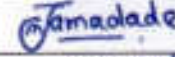

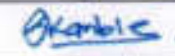

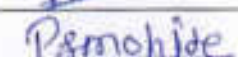



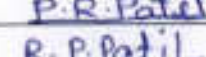






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Dist- Sangli.  
In Collaboration with  
Stem Plus Cryopreservation Pvt. Ltd., Sangli

Date: 05/2/2021

Time: 12 to 1.30 pm

Training Name: Hands-on Training in Stem Cell Banking

Sr. No.	Name of the students	Signature
1.	/Bodake Sakshi Shankar	
2.	/Erandole Shubhangi Mahadev	
3.	/Ghagare Komal Bhairu	
4.	/Jadhav Gouri Raghunath	
5.	/Jamadade Mayuri Vishnu	
6.	/Kamble Prachi Vijay	
7.	/Kamble Shweta Vikas	
8.	/Mali Aishwarya Abaso	
9.	/Mohite Priti Shankar	
10.	Mr. Patil Prasad Kailas	
11.	/Patil Pratiksha Ravsaheb	
12.	/Patil Preeti Rajendra	
13.	/Patil Rupali Parasharam	
14.	/Patil Shivani Avinash	
15.	/Pawar Surbhi Rajendra	
16.	/Taur Shraddha Kailas	
17.	Mr. Jadhav Suhas Shivaji	
18.	/Thorat Dipti Laxman	

  
Dr. P. B. Teli  
Training Coordinator

  
Dr. Meghnad G. Joshi  
CMD  




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Dist- Sangli.**  
In Collaboration with  
**Stem Plus Cryopreservation Pvt. Ltd., Sangli**

Date: 06/2/2021

Time: 12 to 1.30 pm

Training Name: Hands-on Training in Stem Cell Banking

Sr. No.	Name of the students	Signature
1.	/Bodake Sakshi Shankar	<i>Bodake</i>
2.	/Erandole Shubhangi Mahadev	<i>Erandole</i>
3.	/Ghagare Komal Bhairu	<i>Ghagare</i>
4.	/Jadhav Gouri Raghunath	<i>Jadhav</i>
5.	/Jamadade Mayuri Vishnu	<i>Jamadade</i>
6.	/Kamble Prachi Vijay	<i>Kamble</i>
7.	/Kamble Shweta Vikas	<i>Kamble</i>
8.	/Mali Aishwarya Abaso	<i>Mali</i>
9.	/Mohite Priti Shankar	<i>Mohite</i>
10.	Mr. Patil Prasad Kailas	<i>Patil</i>
11.	/Patil Pratiksha Ravsaheb	<i>Patil</i>
12.	/Patil Preeti Rajendra	<i>P.R. Patil</i>
13.	/Patil Rupali Parasharam	<i>R.P. Patil</i>
14.	/Patil Shivani Avinash	<i>Patil</i>
15.	/Pawar Surbhi Rajendra	<i>Pawar</i>
16.	/Taur Shraddha Kailas	<i>Taur</i>
17.	Mr. Jadhav Suhas Shivaji	<i>Jadhav</i>
18.	/Thorat Dipti Laxman	<i>Thorat</i>

*Telap*  
Dr. P. B. Teli  
Training Coordinator

*Meghnad G. Joshi*  
Dr. Meghnad G. Joshi  
CMD



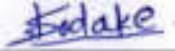



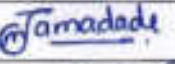



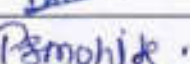
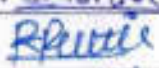


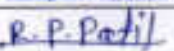
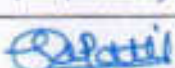




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Shri Swarni Vivekanand Shikshan Sanstha Kolhapur's  
**Padmabhushan Dr. Vasantrodada Patil Mahavidyalaya, Tasgaon,  
Dist- Sangli.**  
**In Collaboration with  
Stem Plus Cryopreservation Pvt. Ltd., Sangli**

Date: 08/2/2021

Time: 10 to 11.30 am

Training Name: Hands-on Training in Stem Cell Banking

Sr. No.	Name of the students	Signature
1.	/Bodake Sakshi Shankar	
2.	/Erandole Shubhangi Mahadev	
3.	/Ghagare Komal Bhairu	
4.	/Jadhav Gouri Raghunath	
5.	/Jamadade Mayuri Vishnu	
6.	/Kamble Prachi Vijay	
7.	/Kamble Shweta Vikas	
8.	/Mali Aishwarya Abaso	
9.	/Mohite Priti Shankar	
10.	Mr. Patil Prasad Kailas	
11.	/Patil Pratiksha Ravsaheb	
12.	/Patil Preeti Rajendra	
13.	/Patil Rupali Parasharam	
14.	/Patil Shivani Avinash	
15.	/Pawar Surbhi Rajendra	
16.	/Taur Shraddha Kailas	
17.	Mr. Jadhav Suhas Shivaji	
18.	/Thorat Dipti Laxman	



Dr. P. B. Teli  
Training Coordinator

  
Dr. Meghnad G. Joshi  
CMD






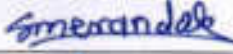





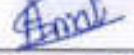
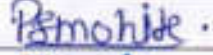



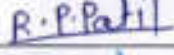





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**Padmabhushan Dr. Vasantrodada Patil Mahavidyalaya, Tasgaon,  
Dist- Sangli.**  
**In Collaboration with  
Stem Plus Cryopreservation Pvt. Ltd., Sangli**

Date: 09/2/2021

Time: 10 to 11.30 am

Training Name: Hands-on Training in Stem Cell Banking

Sr. No.	Name of the students	Signature
1.	/Bodake Sakshi Shankar	
2.	/Erandole Shubhangi Mahadev	
3.	/Ghagare Komal Bhairu	
4.	/Jadhav Gouri Raghunath	
5.	/Jamadade Mayuri Vishnu	
6.	/Kamble Prachi Vijay	
7.	/Kamble Shweta Vikas	
8.	/Mali Aishwarya Abaso	
9.	/Mohite Priti Shankar	
10.	Mr. Patil Prasad Kailas	
11.	/Patil Pratiksha Ravsaheb	
12.	/Patil Preeti Rajendra	
13.	/Patil Rupali Parasharam	
14.	/Patil Shivani Avinash	
15.	/Pawar Surbhi Rajendra	
16.	/Taur Shraddha Kailas	
17.	Mr. Jadhav Suhas Shivaji	
18.	/Thorat Dipti Laxman	

  
Dr. P. B. Teli  
Training Coordinator

  
Dr. Meghnad G. Joshi  
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**Padmabhushan Dr. Vasantrodada Patil Mahavidyalaya, Tasgaon,**  
**Dist- Sangli.**  
**In Collaboration with**  
**Stem Plus Cryopreservation Pvt. Ltd., Sangli**

Date: 10/2/2021

Time: 10 to 11.30 am

Training Name: Hands-on Training in Stem Cell Banking

Sr. No.	Name of the students	Signature
1.	/Bodake Sakshi Shankar	<i>Bodake</i>
2.	/Erandole Shubhangi Mahadev	<i>Smerandole</i>
3.	/Ghagare Komal Bhairu	<i>Ghagare</i>
4.	/Jadhav Gouri Raghunath	<i>G.Radhav</i>
5.	/Jamadade Mayuri Vishnu	<i>Jamadade</i>
6.	/Kamble Prachi Vijay	<i>Prachi</i>
7.	/Kamble Shweta Vikas	<i>Kamble</i>
8.	/Mali Aishwarya Abaso	<i>Mali</i>
9.	/Mohite Priti Shankar	<i>P.mohite</i>
10.	Mr. Patil Prasad Kailas	<i>Prasad</i>
11.	/Patil Pratiksha Ravsaheb	<i>P.patil</i>
12.	/Patil Preeti Rajendra	<i>P.R.Patil</i>
13.	/Patil Rupali Parasharam	<i>R.P.Patil</i>
14.	/Patil Shivani Avinash	<i>Shivani</i>
15.	/Pawar Surbhi Rajendra	<i>Surbhi</i>
16.	/Taur Shraddha Kailas	<i>Shraddha</i>
17.	Mr. Jadhav Suhas Shivaji	<i>Suhas</i>
18.	/Thorat Dipti Laxman	<i>D.Thorat</i>

*Tesp*

Dr. P. B. Teli  
Training Coordinator

*Meghnad G. Joshi*  
Dr. Meghnad G. Joshi  
CMD







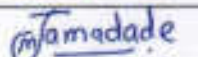
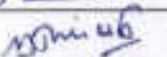


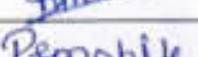



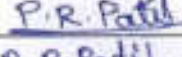





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**Padmabhushan Dr. Vasantrodada Patil Mahavidyalaya, Tasgaon,  
Dist- Sangli.**  
**In Collaboration with  
Stem Plus Cryopreservation Pvt. Ltd., Sangli**

Date: 11/2/2021

Time: 10 to 11.30 am

Training Name: Hands-on Training in Stem Cell Banking

Sr. No.	Name of the students	Signature
1.	/Bodake Sakshi Shankar	
2.	/Erandole Shubhangi Mahadev	
3.	/Ghagare Komal Bhairu	
4.	/Jadhav Gouri Raghunath	
5.	/Jamadade Mayuri Vishnu	
6.	/Kamble Prachi Vijay	
7.	/Kamble Shweta Vikas	
8.	/Mali Aishwarya Abaso	
9.	/Mohite Priti Shankar	
10.	Mr. Patil Prasad Kailas	
11.	/Patil Pratiksha Ravsaheb	
12.	/Patil Preeti Rajendra	
13.	/Patil Rupali Parasharam	
14.	/Patil Shivani Avinash	
15.	/Pawar Surbhi Rajendra	
16.	/Taur Shraddha Kailas	
17.	Mr. Jadhav Suhas Shivaji	
18.	/Thorat Dipti Laxman	

  
Dr. P. B. Teli  
Training Coordinator

  
Dr. Meghnad G. Joshi  
CMD  


“Dissemination of Education for Knowledge, Science, and Culture”  
- ShikshanmaharshiDr.BapujiSalunkhe  
**Shri Swami VivekanandShikshanSanstha, Kolhapur**

**PADMABHUSHAN DR.VASANTRAODADA  
PATIL MAHAVIDYALAYA, TASGAON**

**DEPARTMENT OF BOTANY**

**REPORT OF**

**WORKSHOP ON  
GARDENING**

**Date: 30/12/2019**

## INFORMATION

<b>Organizing Department</b>	Botany	
<b>Activity</b>	One Day Workshop on Gardening	
<b>Date</b>	30/12/2019	
<b>Duration</b>	01 Day	
<b>Participants</b>	<b>Students</b>	156
	<b>Faculty</b>	03
<b>Total Participants</b>		159

Dissemination of Education for Knowledge, Science, and Culture”  
- ShikshanmaharshiDr.BapujiSalunkhe  
Shri Swami VivekanandShikshanSanstha, Kolhapur  
PadmabhushanDr.VasatraodadaPatilMahavidyalaya, Tasgaon

## Department of Botany

**Date: 25/12/2019**

To

The Principal

PadmabhushanDr.VasatraodadaPatilMahavidyalaya,

Tasgaon, Dist- Sangli.416312

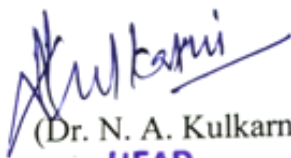
**Subject:** To seek Permission to conduct ‘**ONE DAY WORKSHOP ON GARDENING**’

Respected sir,

With reference to above mentioned subject, Department of Botany is going to conduct one day workshop on gardening on **30/12/2019**. We are kindly requesting you to allow us to conduct this activity for our students.

Thanking you

Yours Faithfully



(Dr. N. A. Kulkarni)

**HEAD**

**DEPARTMENT OF BOTANY**

**PADMABHUSHAN DR. VASANTRAO DADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI**




“Dissemination of Education for Knowledge, Science, and Culture”  
-ShikshanmaharshiDr.BapujiSalunkhe  
Shri Swami VivekanandShikshanSanstha, Kolhapur  
PadmabhushanDr.VasatraodadaPatilMahavidyalaya, Tasgaon

**DEPARTMENT OF BOTANY  
2019-20**

**Notice**

Date :26/12/2019

All the students of the college hereby informed that we are going to conduct one day workshop on gardening on **30/12/2019**. All the students are requested to participate in this course.

  
(Dr. N. A. Kulkarni)  
**HEAD**  
**DEPARTMENT OF BOTANY**  
PADMABHUSHAN DR. VASANTRAO DADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI

## **INTRODUCTION:**

Gardening is very interesting branch of botany which deals with various aspects of plants like landscape gardening, growing of indoor plants, bonsai making, terrarium (bottle garden), flower arrangements etc. For getting knowledge of these branches of gardening in addition to the theoretical information practical or hands-on experience is more useful to the students. Practical knowledge of these skills may be helpful to students to start a small scale business or to perform in their own houses.

Keeping in mind the department of Botany has organized one day workshop on various aspects of gardening like Landscape Gardening, Bonsai, Flower Arrangements and Terrariums on **30/12/2019**. Experts from various gardening branches are invited to deliver their expertise in the workshop. Shri. Sanjeev Walawalkar (Landscape gardening), Dr. Manjushree Phadake and Mrs. Neha Kulkarni (Terrarium), Mrs. Mrunal Natekar (Flower Arrangement) from an NGO named "HIRVAL" are invited for their demonstrations with the natural materials.

The inauguration of the function has been made by the auspicious hands of Principal. Dr. Milind Hujare Sir. After the inauguration the workshop is followed with the lecture by Shri. Sanjeev Walawalkar on various aspects of gardening like Landscape gardening, fertilizers used, soils, pots used for the Bonsai preparation etc. After the lecture by Shri. Sanjeev Walawalkar, two separate groups of students are made and the lecture and demonstration by Dr. Manjushree Phadake and Mrs. Neha Kulkarni on Terrarium and bonsai preparation by Mrs. Mrunal Natekar on Flower Arrangement has been parallelly in two separate laboratories for close grasping of the students.



**Inauguration of the Know Our Plant Best Practice of the Department**



Introductory speech by Dr.N.A.. Felicitation of Chief Guest Kulkarni



Felicitation of Resource Persons



**Inauguration of the One Day Workshop on Gardening**

## **Lecture and Demonstration No.1: Shri. Sanjeev Walawalkar (Landscape gardening and Bonsai)**

-The first lecture has been delivered by Shri. Sanjeev Walawalkar on Landscape gardening and Bonsai. He has explained various aspects of gardening. He has explained following principles.

**Principles of Landscaping:**It is very difficult to lay down principles of landscaping, applicable everywhere.

**However, he has told the general principles of landscaping as follows:**

(i) The ideal landscape garden is like ideal landscape painting which expresses some single thought or feelings. Its expression may be gay, bold, retired, quiet, etc.(ii) Beauty and utility should be harmoniously combined.(iii) Area should be divided into different parts and plan should be conceived for each area. Overall plan should be such that the observer catches the entire effect and purpose of the plan without stopping to analyze its parts.(iv)Let the garden and building merge into each other. There should not be stopping abruptly particularly in front of building. The view of garden from the windows and doors should be very attractive. Planting around the building, climbers against wall and on the porch, decoration of verandah and rooms with attractive foliage, flowering plants, hanging baskets serve to unique the building with garden. Every part of the compound should be planned in such a way that it gives surprising effect to visitor.(v) Simplicity of design should be aimed at which helps in the execution of the plan.(vi)An ideal landscape should have open space.(vii) Over crowding of plants and object should be avoided.



He has also explained various aspects of Bonsai preparation. He has explained the materials required for bonsai preparation like Bonsai pots, Soil, fertilizers required etc.



### **Lecture and Demonstration No.1: Shri. Sanjeev Walawalkar(Landscape gardening and Bonsai)**

**Lecture and DemonstrationNo.2: Dr. Manjushree Phadake and Mrs. Neha Kulkarni (Terrarium)** –Dr. Manjushree Phadake and Mrs. Neha Kulkarni have together explained various styles of Bonsai making and Terrarium preparation along with the demonstration.





## **Lecture and Demonstration No.2: Dr. Manjushree Phadake and Mrs. Neha Kulkarni (Terrarium)**

### **They have explained following points.**

Bonsai is an art of dwarfing trees and perennial shrubs. A bonsai is not just a dwarfed plant, but it should depict all the characteristics of an age-old tree in its full glory. It is not at all difficult to dwarf a tree or a shrub. But, skill is needed in making it a mini replica of a giant tree with all its glory and ruggedness,

**Choosing plants:** Any of local, perennial trees or shrubs, preferably with tiny or smaller leaves can be chosen. These days a number of exotic foreign plants too are available for bonsai. Imli, Vilayati Imli (Manila tamarind), Indian coral

tree, Bottle brush tree, Parkinsonia, Casuarina, Persian lilac, Sandpaper tree, varieties of Ficus, Guaiacum and Baobab tree some of the trees which are suitable for bonsai. Malpighia, Kamini, Serissa, Lantana, Galphimia, Duranta, Calliandra, Bougainvillea, Carmona, Ravenia, Schefflers, Aralia, Portulacaria (Jade plants) and Adenium are some of the suitable shrubs.

**Containers:** Earthen or ceramic containers are most useful. The pot should have its mouth larger than its base. Containers with constricted mouths should not be used, as changing soil and root pruning in these pots is difficult.

**Soil Mixture:** A small quantity of sand, vermiculite, rice husk or brick granules are used in the soil mixture; it will remain porous for longer periods. The porosity in soil aerates the soil; thus promoting healthy root growth and also facilitates faster drainage.

**Implements:** Secateurs, small poker for loosening soil, pliers or a wire cutter, watering can with a fine sprinkler and a spray pump (optional).

**Materials:** Good garden soil, farmyard manure, nylon netting, moss and copper wires of 20, 18 and 16 gauge. (Sand/vermiculite/rice husk optional).

**How to get plants:** Visit the nurseries to find a good source of healthy plants. Plants bought from a nursery will save you the time, as they will be already grown up. Alternately, one may grow the plants from seeds, by cuttings, or by layering / grafting / budding.

**Useful hints:** If you buy a plant from a nursery and if the plant is too big to be accommodated in the chosen bonsai pot, then first do partial pruning of branches and roots. Repot the plant in a slightly smaller pot. Allow it to stabilize. After this, branch and root pruning can be done again for repotting in a even smaller pot.

**Pruning and Pinching:** Pruning of branches is done either to shorten a branch or to eliminate it. Pinching is done to encourage side shoots to grow and thus to make it grow dense. Branch pruning and pinching alone is responsible mainly in dwarfing of the plant.

**Root Pruning:** A potted plant can be dwarfed without pruning its roots.

To accommodate a plant in a smaller pot, it becomes necessary to prune some of the roots.

**Shaping:** To bend and twist the branches to a desired shape, following processes are followed. Tying, wiring and tilting. Tying is a process in which branches are tied down or up and secured to a support to get the desired effect. In wiring, soft copper or aluminium wires are wound around a stem in a helical manner. After wires are wound, the branches could be bent to a desired form. The process of bending them should be done gradually. After the branch has acquired the desired shape (After a few months) the wires are removed.

Dr. Manjushree Phadakehas explained the technique of making the “Terrarium” or Bottle Garden. It is a technique in which miniature plants are grown in broad mouth glass bottles. She explained choose only those plants, which tolerate shade and humid atmosphere. The plants chosen also should be slow growing; as fast growing plants will need frequent pruning; for which opening of the bottle frequently will be needed. Keep the bottle near the window, where it will get bright diffused light. Hot sunlight must be avoided. If exposed to harsh sunlight, plants will literally get cooked inside the bottle. Following plants are suitable for the bottle gardens. Fittonia, Episcia, Miniature varieties of Aglaonema, Ferns, Cryptanthus, Pilea, Pellionia and Peperomia.





**Pots used for Bonsai Preparation**



**Soil prepared for Bonsai Preparation**



**Bonsai of Stone Plant**



**Bonsai of Ficus Plant**



**Bonsai of Rubber Plant**




**Bonsai of Ficus Plant**

### **Lecture and Demonstration No.3: Mrs. Mrunal Natekar (Flower Arrangement)**

-Mrs. Mrunal Natekar have explained and demonstrated various methods and styles of Flower Arrangement by using the flowers of Gerbera, Carnation, Dahlia, Duranta etc. She has shown the styles of Bouquets and flower pots for the ceremonies. She has practiced the preparation of these items from the students. Students are actually experienced making of Bouquets and flower pots.



### **Lecture and Demonstration No.3: Mrs. MrunalNatekar (Flower Arrangement)**

  
(Dr. N. A. Kulkarni)  
**HEAD**  
**DEPARTMENT OF BOTANY**  
PADMABHUSHAN DR. VASANTRAO DADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI




## List of Participants

"ॐ, शान्ति सौम्ये सुखे शान्ति शान्ति" - शांति सौम्ये सुखे शान्ति  
 श्री. स्वामी विवेकानंद शिक्षण संस्था, कोल्हापूर  
**Padmabhushan Dr. Vasanttraodada Patil Mahavidyalay, Tasgaon**  
 (Dist. Sagar)

CLASS ROOM ATTENDANCE SHEET

Name of the Teacher Crardening W.D. Patil Subject \_\_\_\_\_  
 Class MSc II / B.Sc II Time \_\_\_\_\_ Date 30/12/2019

Roll No.	Name of the Student	Signature	Roll No.	Name of the Student	Signature
5711	Savare Abhishek Mahesh	<i>[Signature]</i>	5438	Kamble Pallavi Girard	<i>[Signature]</i>
5712	Rambhambha Shambhu P.	<i>[Signature]</i>	5704	Gavade Shital Ashok	<i>[Signature]</i>
5713	Ghodake Shambhu P.	<i>[Signature]</i>	5802	Desai Anurata Madhubal	<i>[Signature]</i>
5714	Lawande Suresh V.	<i>[Signature]</i>	5715	Besul Arunima A	<i>[Signature]</i>
5715	Sonali Anurag	<i>[Signature]</i>	5716	Sonika Shandak A	<i>[Signature]</i>
5717	Zohi Anurag	<i>[Signature]</i>	5719	Jadhav Pranali Raghunath	<i>[Signature]</i>
5720	Patil Rajat Dattatray	<i>[Signature]</i>	5721	Chavhan Nipun Indira	<i>[Signature]</i>
5721	Kamble R. H.	<i>[Signature]</i>	5724	Gadgil Parva Vijay	<i>[Signature]</i>
5723	Patil Balakrishna Dattatray	<i>[Signature]</i>	5725	Mali Pranita Kumar	<i>[Signature]</i>
5724	Mane Omkar Prasad	<i>[Signature]</i>	5726	Gavade Swati Dadaso	<i>[Signature]</i>
5727	Gajare Tarash Balu	<i>[Signature]</i>	5729	Hakke Tejaswini B.	<i>[Signature]</i>
5728	Vhanmane Ravindra Shekhar	<i>[Signature]</i>	5730	Patil Ratna Taraji	<i>[Signature]</i>
5729	Pawar Atish Suresh	<i>[Signature]</i>	5731	Patil Poojita Vinod	<i>[Signature]</i>
5731	Mulla Riyaj Akram	<i>[Signature]</i>	5732	Mali Kamal Dattatray	<i>[Signature]</i>
5733	Patil Anandha A.	<i>[Signature]</i>	5733	Pawar Subhi Ravindra	<i>[Signature]</i>
5734	Patil Dipali P.	<i>[Signature]</i>	5734	Mali Kamal Manoj	<i>[Signature]</i>
5735	Mali Ashwini C.	<i>[Signature]</i>	5735	Mohite Vandana D.	<i>[Signature]</i>
5736	Liagide Pallavi G.	<i>[Signature]</i>	5736	Mhaskade Vaishnavi M.	<i>[Signature]</i>
5737	Patil Ashwini G.	<i>[Signature]</i>	5737	Mohite Anurata Manik	<i>[Signature]</i>
5738	Murkar Snehal J.	<i>[Signature]</i>	5738	Gadgil Bonam Shantak	<i>[Signature]</i>
5739	Dambe Ashwini N.	<i>[Signature]</i>	5739	Patil Hital Suresh	<i>[Signature]</i>
5740	Ghodake Sneha C.	<i>[Signature]</i>	5740	Mohite Shital Vikal	<i>[Signature]</i>
5741	Yalmar Dipali Lalasa	<i>[Signature]</i>	5741	Pawar Pallavi Manasa	<i>[Signature]</i>
5742	Talwar Gayatri Chandrakant	<i>[Signature]</i>	5742	B. Dharkar Satibha D.	<i>[Signature]</i>
5743	Havare Rupali Vilhal	<i>[Signature]</i>	5743	Patil Sapriya Sampat	<i>[Signature]</i>
5744	Madane Komal Anjana	<i>[Signature]</i>	5744	Patil Kamal Balakrishna	<i>[Signature]</i>
5745	Patil Poojita Shivaji	<i>[Signature]</i>			
5746	Dhankawade Snehal	<i>[Signature]</i>			
5747	Chavan Mayuri Ganesh	<i>[Signature]</i>			
5748	Patil Ujjwala Baburaj	<i>[Signature]</i>			

  
 Signature of the Teacher

'ज्ञानं विद्यां ज्ञानेन सुखेन च संयोज्य विद्यां ज्ञानं' - विद्यामूर्ती सं. कटपुरी सांगळे  
 Shri Swami Vivekanand Stokeshan Sanstha, Kolhapur

**Padmabhushan Dr. Vasantraodada Patil Mahavidyalay, Tasgaon**  
 (Dist. Sangli.)

**CLASS ROOM ATTENDANCE SHEET**

Name of the Teacher Workshop on Gardening Subject \_\_\_\_\_  
 Class \_\_\_\_\_ Time \_\_\_\_\_ Date 30-12-2019

Roll No.	Name of the Student	Signature	Roll No.	Name of the Student	Signature
5683	Mali Pranali Balasa	<u>Pranali</u>	5704	Patole Sayali Ramchandra	<u>Sayali</u>
5675	Jamadade Mayuri Vishnu	<u>Mayuride</u>	5725	Salunkhe Snehal Dinesh	<u>Salunkhe</u>
5672	Jadhav Gauri Raghunathan	<u>Gauride</u>	5729	Patil Gauri Sharad	<u>Patil</u>
5645	Naravade Pooja Tanaji	<u>Pooja</u>		Pawar Snehal M	<u>Snehal</u>
5824	Jamadade Rutuja Subhash	<u>Rutujade</u>	6122	Deshmukh Anuradha B.	<u>Anuradha</u>
5852	Patil Divya Arjun	<u>Divya</u>	6125	Salunkhe Ankita S.	<u>Salunkhe</u>
5699	Patil Priyanka Balasa	<u>Priyanka</u>	618	Patil Samrudhi S.	<u>Samrudhi</u>
5834	Mane Pratibha Manik	<u>Pratibha</u>	6134	Salunkhe Snehal B	<u>Snehal</u>
5822	Jadhav Sonali Baban	<u>Sonali</u>	6131	Patil Ronam A.	<u>Ronam</u>
5835	Mane Samrudhi Mahan	<u>Samrudhi</u>	6123	Jadhav Neha K.	<u>Neha</u>
5832	Mane Ankita Adhikar	<u>Ankita</u>	604	Patil Rohini S	<u>Rohini</u>
6130	Patil N. V.	<u>N. V.</u>	6127	Shukarke Samant J	<u>Shukarke</u>
5128	Sutar Pranita P.	<u>Pranita</u>	6125	Khandagale Tanuja S.	<u>Tanuja</u>
5674	Kale Kajal Kisan	<u>Kajal</u>	5704	Patil smita tanaji	<u>Patil</u>
5719	Wagh Akanksha Sanjay	<u>Akanksha</u>	5704	Patil Swapnali Sayaji	<u>Swapnali</u>
5602	Gavan Pramila Pandurang	<u>Pramila</u>	5293	Ugare Tejaswini Sahab	
5670	Mali Ashwini Ramchandra	<u>Ashwini</u>	5800	Mohite Shitalvikas	<u>Shital</u>
5660	Mane Kashi Manojkumar	<u>Kashi</u>	5854	Patil Kirti Suresh	<u>Kirti</u>
5693	Patil Anuradha Dinkar	<u>Anuradha</u>	5680	Mali Ashwini C.	<u>Ashwini</u>
5668	Giri Kavita Sanjay	<u>Kavita</u>	5711	Pawar Pallavi Manasaheb	<u>Pallavi</u>
5604	Erandale Shubhangi Mahadev	<u>Shubhangi</u>			
5677	Kulkarni Vaishnavi S.	<u>Vaishnavi</u>			
5671	Jadhav Bhagyashri Babar	<u>Bhagyashri</u>			
5650	Mane Sumita Pratap	<u>Sumita</u>			
5606	Mane Manisha Madhukar	<u>Manisha</u>			
5783	Abdare Bhagyashri S.	<u>Bhagyashri</u>			
5226	Khedkar Ashwini A.	<u>Ashwini</u>			
121	Ashitekar Rutuja B.	<u>Rutuja</u>			
5621	Mali Pranjita Ashok	<u>Pranjita</u>			
5600					

  
 Signature of the Teacher



"ज्ञानं विद्यां तयोः सुखानां सांख्ये विद्यां ज्ञानम्" - विश्वकर्माजी डॉ. बाबाजी साठुगे

Sri Savani Vivekanand Shikshan Sanstha, Kolhapur's

**Padmabhushan Dr. Vasantraodada Patil Mahavidyalay, Tasgaon**

(Dist. Sangli.)

**CLASS ROOM ATTENDANCE SHEET**

Name of the Teacher Garudaining Workshop Subject \_\_\_\_\_

Class BSc - II / MSC - II Time \_\_\_\_\_ Date 30/12/2019

Roll No.	Name of the Student	Signature	Roll No.	Name of the Student	Signature
5686	More Manisha Madhukar	<u>Manisha</u>	5685	More Kavita Sanjay	<u>K.S. More</u>
5793	Abdare Phagis Bhabhi	<u>Phagis</u>	5795	Patil Rohini Ganpat	<u>Rohini</u>
5720	Yalmar Dipali Lalaso	<u>Deepali</u>	5723	Patil Sushruti J.	<u>Sushruti</u>
5679	Madane Kamal Sanjayrao	<u>Kamal</u>	6111	Ashtekar Rutuja R.	<u>Rutuja</u>
5670	Hivare Rupali Vitthal	<u>Rupali</u>	3230	Kasar Pooja Anand	<u>Pooja</u>
5851	Patil Dipali Ramchandra	<u>Dipali</u>	3008	Karande Kamal Sitaram	<u>Karande</u>
5849	Patil Anuradha Anand	<u>Anuradha</u>	9217	Patil Nikita Anil	<u>Nikita</u>
5825	Dhanawade Snehal	<u>Snehal</u>	9218	More Aishwarya Sanjay	<u>More</u>
5661	Chavan Mayuri Sampad	<u>Mayuri</u>	3228	Patil Shreya Sandip	<u>Shreya</u>
5705	Patil Ujjwala Babarav	<u>Ujjwala</u>	9480	Waghmode Lata Dattatray	<u>Lata</u>
5842	Mohite Vedanti D.	<u>Vedanti</u>	926	Mulla Sumaiyya Shaukat	<u>Sumaiyya</u>
5844	Nalawade Vaishnavi	<u>Vaishnavi</u>	9231	Sutar Vaishnavi Anand	<u>Vaishnavi</u>
5838	Mohite Amruta Manik	<u>Amruta</u>	9230	Shinde Sushil Sanjay	<u>Shinde</u>
5665	Gaithwad Anam Shantim	<u>Anam</u>	9235	Patil Suraj Balasaheb	<u>Suraj</u>
5840	Mohite Shital Vikas	<u>Shital</u>	9238	Sabharwal Gajal Honanant	<u>Gajal</u>
5849	Ugare Taraswini Satish	<u>Taraswini</u>	5695	Patil Kiran Anil	<u>Kiran</u>
5701	Patil Smita Ganaji	<u>Smita</u>	5697	More Omkar Omkar	<u>More</u>
5704	Patil Swapnali Ganaj	<u>Swapnali</u>	5698	Nalawade Ruturaj	<u>Ruturaj</u>
5712	Saravade Sonali B.	<u>Sonali</u>	5691	Nalawade Rahul	<u>Rahul</u>
5917	Dipti L. Thorat	<u>Dipti</u>	5704	Kanhanke Shubham P.	<u>Shubham</u>
5834	More Pratikha Manik	<u>Pratikha</u>	5719	Savare Anas Mathesh	<u>Anas</u>
5832	More Ankita Adikrao	<u>Ankita</u>	5720	Jadhav Pranit Shantaji	<u>Pranit</u>
5822	Jadhav Sonali Babarav	<u>Sonali</u>	5676	Khasat Ruturaj D. Pr.	<u>Ruturaj</u>
5835	More Samruddhi M.	<u>Samruddhi</u>	5710	Watakale Pooja Anand	<u>Pooja</u>
5852	Patil Divya Arjun	<u>Divya</u>	5829	Kandage Swarni V.	<u>Swarni</u>
5650	Patil Poojanka Anand	<u>Poojanka</u>	5811	Chhatrkar Shantaram	<u>Shantaram</u>
5667	Gavade Smita Dadasa	<u>Smita</u>	5839	Mohite Dilip N.	<u>Dilip</u>
5680	Mali Ashwini Chandrakant Anand	<u>Ashwini</u>	5847	Patil Aditya S.	<u>Aditya</u>
5666	Gaithwad Purva Vijay	<u>Purva</u>			
5697	Patil Prafakta Dilip	<u>Prafakta</u>			

Signature of the Teacher



"ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षणप्रसार" - शिक्षणमहर्षी डॉ. बापूजी साळुंखे

Shri Swami Vivekanand Shikshan Sanstha, Kolhapur's

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA**

**TASGAON**, Dist. Sangli, Pin-416 312 ☎ - STD : 02346-250665, 250575 FAX : 250575

• **Affiliated to Shivaji University, Kolhapur** •

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Established Year : June 1962 • P. B. No. : 14 • Jr. College No. : J22-10-001 • Sr. College Code No. :  $\frac{SIACIS}{X}$  Jr.: C-8



NAAC Reaccredited 'B' (2.76)

ISO Certified : 9001:2015

**Shikshanmaharshi  
Dr. Babuji Salunkhe**  
B.A., B.T., D.Lit.  
FOUNDER

**Hon. Chandrakant (Dada) Patil**  
PRESIDENT  
B.Com.  
Ex- Minister of Revenue, Public Works  
Govt. of Maharashtra

**Prin. Abhaykumar Salunkhe**  
M.A.  
CHAIRMAN

**Prin. Mrs. Shubhangi Gawade**  
M.Sc., B.Ed.  
SECRETARY

**Dr. Milind S. Hujare**  
M.Sc., Ph.D.  
PRINCIPAL

Ref.No. : PDVPMT /

Date :

### RESEARCH PROMOTION SCHEME 2019-20

Sr. No.	Name of PI and Students	Title of Project	Seed money Rs.
1.	Dr. AmolGowardhanSonawale. 1. Miss SutarHarshada Suresh 2. Miss MulaniReshmaLalasaheb 3. Miss Zambare Swati Mansing 4. Miss PatilRutuja Ramesh	"Grape Crop Value Chain Analysis Of Marketing System In Tasgaon Taluka."	5000
2.	Dr. BanduJayshingKadam. 1. Miss. SupriyaRavsahabPatil. 2. Miss. Poonam BalasoPatil. 3. Mr. Vinod JalindarSawant. 4. Mr. SushantSubhashChavan. 5. Mr. Rahul MurlidharShinde.	"तासगाव तालुक्यातील वंचित घटकांच्या मानवी विकास निर्देशांकांचा अभ्यास"	5000
3.	Dr. Haji DawalsahebNadaf. 1. Mr. Ashraf ayubmujawar. 2. Miss. Pooja JayramJadhav. 3. Miss. Nikita VasudevKoli. 4. Miss. Shubhangiashok Mail. 5. Miss. NamiraInaytullaMulani.	"A Study Of Local History And Synergetic Culture In Tasgaon Taluka."	5000

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**Principal**  
Padmabhushan Dr. Vasant Rao Dada Patil  
Mahavidyalaya, Tasgaon. (Sangli)





"ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षणप्रसार" - शिक्षणमहर्षी डॉ. बापूजी साबुंखे

Shri Swami Vivekanand Shikshan Sanstha, Kolhapur's  
**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA**

**TASGAON**, Dist. Sangli, Pin- 416 312 ☎ - STD : 02346-250665, 250575 FAX : 250575

• **Affiliated to Shivaji University, Kolhapur** •

E-mail : san.pdvpm.tas@gmail.com Website : www.pdvpmtasgaon.edu.in

Established Year : June 1962 P. B. No. : 14 Jr. College No. : JZ2-10-001 Sr. College Code No. :  $\frac{SIACM}{X}$  Jr. : C-8



NAAC Reaccredited 'B' (2.75)

ISO Certified : 9001:2015

Shikshanmaharshi  
Dr. Babuji Salunkhe  
B.A., B.T., D.Lit.  
FOUNDER

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M.Sc., Ph.D.  
PRINCIPAL

Ref.No. : PDVPMT /

Date :

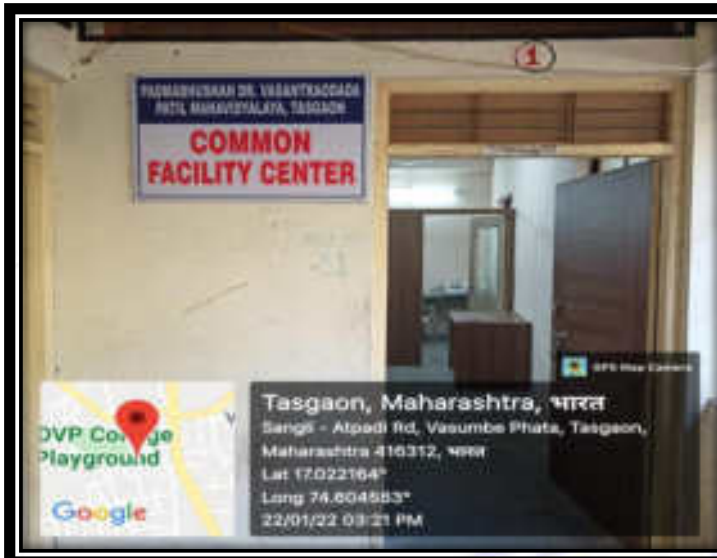
**RESEARCH PROMOTION SCHEME 2020-21**

Sr. No.	Name of PI and Students	Title of Project	Seed money Rs.
1.	Dr. BanduJayshingKadam. 1. Mr. Ritual Ramesh Shinde. 2. Mr. ChandrakantDhanji Mane. 3. Mr. OmkarJanardanPatil. 4. Mr. Prashant Vasant Patil. 5. Mr. SwapnilTukaramJamdade.	"तासगाव तालुक्यातील सर्वसमावेशक ग्रामीण विकास चा अभ्यास"	5000
2.	Dr. Pratiksha Suresh Bhandare. 1. Mr. JadhavSuhashShivaji. 2. Miss BodakeSakshi Shankar 3. Miss KamblePratikshaRavsahab 4. Miss TaurShradha Kailas	"Diversity Of Avifauna In Local And Peripheral Ecosystems Of TasgaonTashil Of Sangli District, Maharashtra, India."	5000
3.	Dr. SachinkumarKisanShinde. 1. Mr. SohebShahitJamdar. 2. Mr.RushikeshrajendraKshirsagar. 3. Mr.AudumberDuryodhanKodag. 4. Mr. Vijay KrushnaSankpal.	"Study Of Raisin Production In Tasgaon Tehsil."	5000

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Principal  
Padmabhushan Dr. Vasanttraodada Patil  
Mahavidyalaya, Tasgaon. (Sangli)



## Common Facility Centre (Combined Research Facility)





“ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षणप्रसार” - शिक्षणमहर्षी डॉ. बापूजी साळुंखे

Shri Swami Vivekanand Shikshan Sanstha, Kolhapur's  
**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA**

TASGAON, Dist. Sangli, Pin- 416 312 ☎ - STD : 02346-250665, 250575 FAX : 250575

● **Affiliated to Shivaji University, Kolhapur** ●

E-mail : san.pdvpmtas@gmail.com Website : www.pdvpmtasgaon.edu.in

NAAC Reaccredited 'B' (2.78)

Established Year : June 1962 P. B. No. : 14 Jr. College No. : J22-10-001 Sr. College Code No. :  $\frac{SVACH}{X}$  Jr.: C-8

ISO Certified : 9001:2015

**Shikshanmaharshi  
Dr. Bapuji Salunkhe**  
B.A., B.T., D.Lit.  
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M.Sc. B.Ed.  
SECRETARY

**Dr. Milind S. Hujare**  
M.Sc., Ph.D.  
PRINCIPAL

Ref.No. : PDVPMT /

Date :

**Total MoU Signed during 2016-2021**

Sr. No.	Name of the institution/ industry/ corporate house with whom MoU is signed	Year of signing MoU	Duration	Department
1	Asura Pharma Training Institute, Vishrambaug, Sangli	02-01-2021	Lifetime	Chemistry
2	Insta-Vision Laboratories and Services, Satara.	25/11/2019- 25/11/2023	5 Years	Chemistry
3	Satyam Institute of Tax Accountant	01-02-2020	Lifetime	Commerce
4	Akhil Bharatiy Grahak Panchayat Tasgaon Taluka	1/6/2018 to 31/05/2023	5 Years	Commerce
5	Government Residencs Women Polytechnic, Tasgaon	15/03/2021	Lifetime	Physics, Botany, Zoology
6	Hirwal Environmental Institute (NGO)	30/12/2019- 30/12/2023	5 Years	Botany
7	Rajarambapu Institute of Technology Islampur	23/01/2018- 23/01/2023	5 Years	Physics
8	Tatyashri Agrotech Cold Storage KavatheEkand	15/7/2019- 15/07/2023	5 Years	Physics
9	Shivaji University Economics Association	16/06/2019 to 15/06/2023	5 Years	Economics
10	Stem Plus Biotech, Sangli	25/08/2018 to 24/08/2023	5 Years	Zoology
11	Dept. of English, R. R. Patil, Savlaj	02/09/2020 to 01/09/2025	5 Years	English
12	The Muncipal Corporation, Tasgaon	21/07/2016 to 20/07/2021	5 Years	PDVP
13	Shivaji University Marathi Teacher'sAssociation	11/09/2019 to 10/09/2024	5 Years	Marathi

14	Rotary Club, Tasgaon	21/07/2016 to 20/07/2021	5 Years	NSS PDVP
15	Rural Hospital Tasgaon	17/01/2020 to 17/01/2030	10 Years	Zoology PDVP
16	The Art of Living Tasgaon	20/06/2021 to 20/06/2026	5 Years	PDVP
17	Raj Career Academy, Manerajuri	21/06/2019 to 20/06/2024	5 Years	PDVP
18	Perfect Electronics, Wai	10/10/2019- 10/10/2023	5 Years	Physics
19	Zeal Institute of Business Administration and Computer Application, Pune	01/02/2019- 01/02/2023	5 Years	Computer Science
20	Miraj Itihas Mandal, Miraj	01/07/2018 to 30/06/2023	5 Years	History
21	The Baha'I Academy Panchagani	04/01/2019 to 31/12/2019	1 Year	Chemistry, Botany and Zoology
22	Dept. of Marathi Raosaheb Ramrao Patil Mahavidyalaya Savlaj, Tal.Tasgaon Dist.Sangli	2015	5 Years	Marathi



  
**Prin. Dr. Milind S. Hujare**  
**Principal**  
 Padmabhushan Dr. Vasantrodada Patil  
 Mahavidyalaya, Tasgaon (Sangli).



*“Dissemination of Education through Knowledge, Science and Culture”*

*- Shikshanmaharshi Dr. Bapuji Salunkhe*

**Shri Swami Vivekanand Shikshan Sanstha Kolhapur's**

**PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST- SANGLI  
416 312 (Maharashtra) Phone No: (02346 - 250665)**

*(Affiliated to Shivaji University, Kolhapur)*

**Report On**

**“HANDS ON TRAINING ON APICULTURE”**

**Organized By**

**DEPARTMENT OF ZOOLOGY**

**&**

**Internal Quality Assurance Cell**



**27<sup>th</sup>  
October  
2021**



**NOTICE**



"Dissemination of Education for Knowledge, Science & Culture"

- Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha, Kolhapur's



**Padmabhushan Dr. Vasantodada Patil Mahavidyalaya,**

**Tasgaon, Dist.-Sangli (MS).**

(NAAC Reaccredited B++)



## **DEPARTMENT OF ZOOLOGY & IQAC** **Organizes**



### **"Hands On Training On Apiculture"**



**Name of Trainer: Shri Dayawan Patil**

(Madhu Amrut Honey Bee Conservation & Research, Kaneri, Kolhapur)

**Date : 27/10/2021**

**Time : 11.30**

**Dr. P. B. Teli**  
Coordinator

**Dr. S. A. Khabade**  
Prof. & Head  
Department of Zoology

**Dr. Milind S. Hujare**  
Principal

<b>Event:</b>	<b>"Hands On Training On Apiculture"</b>
<b>Organizing Department</b>	<b>Department of Zoology &amp; IQAC</b>
<b>Date</b>	<b>27<sup>th</sup> October 2021</b>
<b>Venue</b>	<b>College Auditorium</b>
<b>Total Participants</b>	<b>99 (Teaching Staff &amp; Students)</b>
<b>Male</b>	<b>56</b>
<b>Female</b>	<b>43</b>





**All Dignitaries & Participants are Welcomed By Dr. Shahaji Patil (Staff Secretary)**



**Apiculture Trainer Mr. Dayawan Patil Introduced By Dr. P. B. Teli**



**Bee Hive Worshipped By Prn. Milind Hujare & Organizing Committee**



**Mr. Dayawan Patil Felicited By Prin. Dr. Milind Hujare**



**Hon. Prin. (Dr.) Milind Hujare Felicited By Prof. S. A. Khabade**



**All Participants (Faculty & Students)**



**Mr. Dayawan Patil Delivered Speech on Apiculture & Hands on Training**





**Presidential Speech On Apiculture By Hon. Principal (Dr.) Milind Hujare**





**Indoor Demonstration to Faculties & Students By Dayawan Patil**



**Votes of Thanks Expressed By Prof. (Dr.) S. A. Khabade**





**Mr. Dayawan Patil Giving Information On Bee Hive**







**Hands On Training On Apiculture In Field By Dayawan Patil  
With Prin. (Dr.) Milind Hujare**







**Honey Comb With Prin. (Dr.) Milind Hujare & Dayawan Patil**



**Honey Comb With Dr. P. B. Teli, Prin. (Dr.) Milind Hujare, Vice Prin. Dr. S. A. Khade, Anna Bagal & Dr. K. N. Patil**

Department of Zoology, P. D. V. P. Mahavidyalaya, Tasgaon and IQAC organised “**Hands On Training On Apiculture**”. Dr. Shahaji Patil welcomed all the Dignitaries, teaching Staff, Farmers & Students. The Hands On Training Trainer Mr. Dayawan Patil (**Madhu-Amrut Honey Bee Conservation & Research Centre Kaneri, Tal Karveer, Dist Kolhapur**) introduced by **Training Coordinator Dr. P. B. Teli**. Mr. Dayawan Patil felicitated by Prin. (Dr.) Milind S. Hujare, Hon. Prin. (Dr.) Milind Hujare felicitated By Prof. (Dr.) **S. A. Khabade** (Head, Department of Zoology).

On the occasion of Hands on training on apiculture Mr. Dayawan Patil said that Honey Bees are God Gift to Nature & Farmers. Honey bees are most important insects in the nature, if they reduce their number, no life on earth surface because they are involved in the transfer of pollen grains from one plant to other, it helps for formation fruits & seed or grains. They are required for human being daily. He also explained the economic importance of Honey bees, their types, Uses honey, wax etc. as well as structure of Bee



Hive apparatus. Each Bee Hive consists of 15000 to 25000 bees (bees includes Female Queen, Male Drones, worker bees) it contains brood chamber, honey chamber etc. In India, Apiculture Industries **Apis cerana indica** bee is used for production of Honey & wax. Apis cerana is less aggressive and produce large amount of honey, it also acclimatise in natural condition of India. In India total 11 to 15000 tons honey will be obtained by Apiculture Industry per year. But requirement is more than 15000 ton of honey. Apiculture is allied business, it gives more money to farmers along with agriculture.

On **Presidential** speech, **Prin. Milind Hujare** explained the detail information of pollination and their benefits. He also give assurance to farmers we are preparing framework of Apiculture, how to train to farmers and production honey.

Lastly vote of thanks expressed by Dr. S. A. Khabade (Professor & Head, Department of Zoology), Vice Prin. Dr. S. K. Khade (Science Wing), Vice Prin. J. A. Yadav, Prof. (Dr.) N. A. Kulkarni (Head, Botany Department), NAAC Coordinator Dr. Alka Inamdar, Staff Secretary Dr. Shahaji Patil, Dr. P. S. Bhandare, Miss. Punam Patil, Mr. V. M. Jadhav, Miss. S. P. Kusarkar, Miss. Chaitali Gavali & B. Sc Students are present. The programme was end on 2.00 pm.

### List of Participants

PADMABHUSAHN DR VASANTRODADA PATIL MAHAVIDYALAYA, TANGAON DIST. SANGLI  
DEPARTMENT OF ZOOLOGY  
"HANDS ON TRAINING ON APICULTURE"

Date: 27/10/2021 Time: 11.30AM Onward

Sr. No.	Name of the Participants	Gender	Occupation	Signature
1	Dr. Pratiksha Suresh Bhumbre	Female	Asst. Prof.	[Signature]
2	Ms. Sujani Shahaji	Female	C.H.B.	[Signature]
3	Ms. Rutuja Rajaram	Female	C.H.B.	[Signature]
4	Dr. Shikha Jagannath Patil	Female	Asst. Prof.	[Signature]
5	Prashant Vinayak Patil	Male	Asst. Prof. in Chem.	[Signature]
6	Dr. Shikha Jagannath Patil	Female	Asst. Prof. in Chem.	[Signature]
7	Sanjay Kaviraj Patil	Male	Geography	[Signature]
8	Dr. Vinod Kumar Patil	Male	Subj. in Chem.	[Signature]
9	Dr. Sumantra Arun Jagannath	Female	Asst. Prof. in Chem.	[Signature]
10	Dr. Ajay Vinayak Patil	Male	Asst. Prof. in Chem.	[Signature]
11	Mr. Sunil Sunil Gauri	Male	Asst. Prof. in Chem.	[Signature]
12	Mr. Yashwantrao Arun Jagannath	Male	Asst. Prof. in Chem.	[Signature]
13	Ms. Chaitali Kishor Bhandare	Female	Mathematics	[Signature]
14	Dr. Kuldeep Narayan Patil	Male	Asst. Prof. in Chem.	[Signature]
15	Dr. Arjun Shivaji Wagh	Male	Asst. Prof. in Chem.	[Signature]
16	Dr. S. P. Kusarkar	Female	Asst. Prof. in Chem.	[Signature]
17	Dr. S. P. Kusarkar	Female	Asst. Prof. in Chem.	[Signature]
18	Dr. Tatoba Kalyan Bhandare	Male	Asst. Prof.	[Signature]
19	Miss. Anuradha Shikha Patil	Female	Asst. Prof.	[Signature]

Sr. No.	Name of the Participants	Gender	Occupation	Signature
20	Patil S.D	Male	Jr college teacher	[Signature]
21	Patil A.R	Male	Teacher	[Signature]
22	Mr. Sanjay V. Mali	Male	Asst. Professor	[Signature]
23	Mr. Maheshkar F.B	Male	Jr. college teacher	[Signature]
24	Mr. P.A. Khade	Male	Asst. Professor	[Signature]
25	Mr. Kulkarni R.G	Male	Jr. College Teacher	[Signature]
26	Mr. Kondhambor S.B.	Male	Laboratory Assistant	[Signature]
27	Shri Kotekar S.O	Male	Lab. Assistant	[Signature]
28	Shri. Sathar A. P.	Male	Jr. college Teacher	[Signature]
29	Shri. Anurag B. Wankar	Male	Jr. college teacher	[Signature]
30	Shri. Dnyanesh Nirvashi Yadav. Patil	Male	Jr. college Teacher	[Signature]
31	Shri. Rajaram B. Wankar	Male	Teacher	[Signature]
32	Shri. Rajesh S. Kumbhar	Male	Asst. Professor	[Signature]
33	Mr. Anil M. Mali	Male	Asst. Professor	[Signature]
34	Mr. Rajaram S. Pawar	Male	—	[Signature]
35	Mr. Bhanu Jyeshth Yadav	Male	Asst. Prof.	[Signature]
36	Mr. Pankaj Anandkumar Anand	Male	Asst. prof	[Signature]
37	Mr. Pankaj Anandkumar Anand	Male	Asst. prof	[Signature]
38	Prof. Kavita Hindraj Wankar	Female	Asst. prof	[Signature]
39	Dr. A.S. Kumbhar	Male	Asst. prof	[Signature]
40	Ms. A.S. Yadav	Female	Asst. Prof.	[Signature]
41	Mr. Patil Deepak Vitthal	Male	Jr. colle. teacher	[Signature]
42	Mr. Anandkumar Anand	Male	student	[Signature]
43	Miss. Anika Yadav	Female	Asst. Prof	[Signature]

Sr. No.	Name of the Participants	Gender	Occupation	Signature
44	J.V. Wankar	Female	P.D.V.P. college	[Signature]
45	S.V. Chavan	Female	P.D.V.P. college	[Signature]
46	V.V. Galavi	Female	P.D.V.P. college	[Signature]
47	A.A. Patil	Female	P.D.V.P. college	[Signature]
48	P.S. Patil	Female	P.D.V.P. college	[Signature]
49	Shri. Chavan	Female	P.D.V.P. college	[Signature]
50	P.P. Gavit	Female	P.D.V.P. college	[Signature]
51	A.R. Patil	Female	P.D.V.P. college	[Signature]
52	Miss. Chaitali Sanjay Gavit	Female	P.D.V.P. college	[Signature]
53	Dr. P.B. Patil	Male	Faculty	[Signature]
54	Dr. N.A. Kulkarni (Prof.)	Male	Professor	[Signature]
55	Dr. Kulkarni S.A.	Male	Professor	[Signature]
56	Miss. Kusarkar S.P.	Female	P.D.V.P. college	[Signature]
57	Miss. Anil P.P.	Female	P.D.V.P. college	[Signature]
58	CHAVAN ROHAN RAJENDRA	Male	P.D.V.P. college	[Signature]
59	Shri. Anandkumar Anand	Male	—	[Signature]
60	Shri. Anandkumar Anand	Male	—	[Signature]
61	Shri. Anandkumar Anand	Female	P.D.V.P. college	[Signature]
62	Shri. Anandkumar Anand	Male/Female	P.D.V.P. college	[Signature]
63	Shri. Anandkumar Anand	Female	P.D.V.P. college	[Signature]
64	Shri. Anandkumar Anand	Female	P.D.V.P. college	[Signature]
65	Shri. Anandkumar Anand	Female	P.D.V.P. college	[Signature]
66	Shri. Anandkumar Anand	Female	P.D.V.P. college	[Signature]
67	Shri. Anandkumar Anand	Female	P.D.V.P. college	[Signature]



Sl. No.	Name of the Participants	Gender	Occupation	Signature
68	Shalga Pranjita Anilbhosar	female.	P.D.V.P. college	
69	Kavathekar Aaditi Sudhakar	female	P.D.V.P. college	
70	Patwar Patil Nishor	Female	P.D.V.P. college	
71	Jadhav Rina Rajendra	female	P.D.V.P. college	
72	Jadhav Sima Anandrao	Female	P.D.V.P. college	
73	Chavan Kajal Sahadev	Female	P.D.V.P. college	
74	Jadhav Supriya Mahesh	Female	P.D.V.P. college	
75	Khade S.K.	Male	P.D.V.P. Targoon	
76	Mali Sharda Sanil	Female	P.D.V.P. Targoon	
77	Patil Divya Dattaji	Female	P.D.V.P. Targoon	
78	Patil Priyanka Annasaheb	Female	P.D.V.P. Targoon	
79	Patil Tejaswini Vinayak	female	P.D.V.P. Targoon	
80	Gujate Rupali Mahadev	Female	P.D.V.P. Targoon	
81	Patil Sanika Sudam	Female	P.D.V.P. Targoon	
82	Bhagyashri Anil Patil	Female	P.D.V.P. Targoon	
83	Joshi Shreya Ganesh	Female	P.D.V.P. Targoon	
84	Patil Rutuja Dadasa	female	P.D.V.P. Targoon	
85	Patil Rajani Ram	Female	P.D.V.P. Targoon	
86	Patil Sakshi Umesh	Female	P.D.V.P. Targoon	
87	Chavan Rohit Sambhaji	male	P.D.V.P. College	
88	Chavan Shubham Rajendra	male	P.D.V.P. College	
89	Chavan Bhatnagar Dhandiram	male	P.D.V.P. College	
90	Manf Tushar Ghazal	Male	P.D.V.P. college	
91	Jomhade Rohit Sanjay	Male	P.D.V.P. college	

Sl. No.	Name of the Participants	Gender	Occupation	Signature
92	Kare Ajinkya Manish	Male	P.D.V.P. Targoon	
93	Sarvesh Palase	Male	P.D.V.P. Targoon	
94	Prathmesh Dhandiram Chavan	Male	P.D.V.P. Targoon	
95	Suraj Namdev Chavan	Male	P.D.V.P. Targoon	
96	Rutuja Pattanayak Mohite	Male	P.D.V.P. Targoon	
97	Vishal Vikas Mohite	Male	P.D.V.P. Targoon	
98	Sagar Shriyaji Mohite	Male	P.D.V.P. Targoon	
99	Vikas Manik Jadhav	Male	P.D.V.P. Targoon	
100				

# तरूण भारत मधमाशी निसर्गाला समृद्ध करते : पाटील

वसंतरावदादा पाटील महाविद्यालयात मधुमक्षिका पालन विषयावर कार्यशाळा

प्रतिनिधी

ताम्रज

मधमाशी नष्ट झाली तर सृष्टी संपुष्टात येते, मधमाशी वाचवणे ही काळाची गरज आहे. मधमाशी निसर्गाला समृद्ध करा, असे प्रतिपादन मधु अमृत हनी बी कॉन्ग्रेशन अँड रिसर्च सेंटरचे दयावान पाटील यांनी केले.

येथील पद्मभूषण डॉ. वसंतरावदादा पाटील महाविद्यालय येथे प्राणीशास्त्र व आणख्यासी विभागाच्या वतीने आयोजित केलेल्या मधुमक्षिका पालन विषयावरील एक दिवसीय कार्यशाळेत पाटील बोलत होते. कार्यक्रमाच्या उल्लेखस्थानी महाविद्यालयाचे प्राचार्य डॉ. मिलिंद हुजरे होते.

पाटील पुढे म्हणाले, मधमाशीच्या पालनातून शेतीचे उत्पन्न वाढवणे शक्य आहे. मधमाशी काढणे पोळा करताना पर्यायीयान पडपूर जावते. आपल्याला निसर्ग वाचवण्याची संध्यता साकार करावी लागते. शेताक्यामध्ये



ताम्रज : येथील पी. डी. बी. महाविद्यालयात मधुमक्षिका पालन कार्यशाळादरम्यान प्राचार्यांक प्रास्ताविक करताना दयावान पाटील, प्राचार्य डॉ. मिलिंद हुजरे व इतर शिक्षक.

मधमाशा पालनातूनही मधुमाशा निर्माण होऊ शकते आहे.

जंगले सन्धी झाड्यापुढे उत्पन्न मधमाशा शहराकडे सरवू लागल्या आहेत. मधमाशी शिवाय निवासाचा मुलूख अजब अजब रीत विकलेली तर प्रवास करते तिला 'कुपेली' असे म्हटले जाते.

मधमाशांचे पाखंडे लक्षात घेऊन सर्वांनी मधमाशांना वाचवण्याच्या संध्यतेला सहभागी

करणे, असे आवाहन त्यांनी केले. ताकटीपेटिण्याचे मधमाशांचे पालन कसे करावे हे प्राथमिकशाळा उपस्थिते.

अध्यक्षस्थानावरून प्रा. डॉ. मिलिंद हुजरे यांनी मधमाशा पर्यायीयानाचे काम कसे करावे हे समजून घ्याव्यात. ताम्रज तालुक्यातील शेताक्यावरील उत्पन्नी चढवक घेऊन जाणा असाव्याचे सांगितले. कार्यक्रमाचे प्रस्ताविक

समन्वयक डॉ. पी. डी. तेली यांनी केले तर उत्पन्न प्राणीशास्त्र विभागप्रमुख प्रा. एस. ए. खाडके यांनी मानले. सूत्रसंचालन प्रा. आण्णासाहेब बागल यांनी केले.

कार्यक्रमात येथे समन्वयक डॉ. अलका इनामदार, उपप्राचार्य डॉ. एस. के. खाडे, प्रा. जे. ए. वादव, आदी विभागाचे निमित्त प्रमुख उपस्थित होते.

# मधमाशी निसर्गाला समृद्ध करणारे माध्यम

दयावान पाटील : वसंतरावदादा महाविद्यालयामध्ये कार्यशाळा

व  
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ने  
पुढे  
हे.  
ची  
होत  
केले  
तून

लोकमत न्यूज नेटवर्क

ताम्रज : मधमाशी नष्ट झाली तर सृष्टी संपुष्टात येईल. मधमाशी वाचवणे ही काळाची गरज आहे. मधमाशी निसर्गाला समृद्ध करा, असे प्रतिपादन मधु अमृत हनी बी कॉन्ग्रेशन अँड रिसर्च सेंटरचे दयावान पाटील यांनी केले.

ताम्रज येथील पद्मभूषण डॉ. वसंतरावदादा पाटील महाविद्यालयात

प्राणीशास्त्र व आणख्यासी विभागाच्या वतीने आयोजित केलेल्या मधुमक्षिका पालन या विषयावरील एकदिवसीय कार्यशाळेत ते बोलत होते. महाविद्यालयाचे प्राचार्य डॉ. मिलिंद हुजरे उपस्थितस्थानी होते.

दयावान पाटील म्हणाले की, मधमाशीच्या पालनातून शेतीचे उत्पन्न वाढविणे शक्य आहे. मधमाशांचे फायदे लक्षात घेऊन सर्वांनी

मधमाशीला वाचवण्याच्या संध्यतेला सहभागी व्हावे.

समन्वयक डॉ. पी. डी. तेली यांनी प्रास्ताविक केले. प्रा. आण्णासाहेब बागल यांनी सूत्रसंचालन केले. प्राणीशास्त्र विभागप्रमुख प्रा. एस. ए. खाडके यांनी आभार मानले. यावेळी डॉ. अलका इनामदार, उपप्राचार्य डॉ. एस. के. खाडे, प्रा. जे. ए. वादव, आदी उपस्थित होते.



# मधमाशी निसर्गाला समृद्ध करते : दयावान पाटील

वसंतरावदादा पाटील महाविद्यालयात मधुमक्षिका पालन या विषयावर एक दिवसीय कार्यशाळा

प्रतिध्वनी : वृत्तवेवा

तासगाव : मधमाशी नष्ट झाली तर सुष्टी संपुष्टात येईल मधमाशी कायबणे ही काळाची गरज आहे. मधमाशी निसर्गाला समृद्ध करते असे उदार मधू अमृत हनी बी कॉन्ग्रेशन अँड रिचर्स सेंटरचे श्री.दयावान पाटील यांनी जयभूपका डॉ.वसंतरावदादा पाटील महाविद्यालय तासगाव येथे प्राणीशास्त्र व जाणववएली विभागाच्या सतीने आयोजित केलेल्या मधुमक्षिका पालन या विषयावरील एक दिवसीय कार्यशाळेत बोलताना काढले. कार्यक्रमाच्या अध्यक्षस्थानी महाविद्यालयाचे प्राचार्य डॉ. मिलिंद हुजरे होते.

पाटील पुढे म्हणाले मधमाशीच्या पालनातून शेतीचे उत्पन्न वाढवणे शक्य



आहे.मधमाशी मकरंद गोळा करताना परागीभवन घडवून आणते आजल्याला निसर्ग वाचविण्याची सज्जत तयार करावी लागेल. शेतकऱ्यांमध्ये मधमाशा पालना संदर्भात जागृकता निर्माण होऊ लागली आहे. जंगले कमी झाल्यामुळे आग्या मधमाशा सहस्रांशे सरकू लागल्या आहेत.मधमाशी तिच्या निवासस्थानातून जवळ जवळ दोन

किलोमीटर पर्यंत प्रवास करते तिला 'कृषीलक्ष्मी' असे म्हटले जाते.मधमाशांचे फायदे लक्षात घेऊन सर्वांनी मधमाशीला वाचविण्याच्या सज्जतीत सहभागी व्हावे असे आवाहन यांनी केले. सरकारीपेटी मध्ये मधमाशांचे पालन करणे करायचे हे प्रात्यक्षिकासह दाखविले.

अध्यक्षस्थानावरून बोलताना प्राचार्य डॉ.मिलिंद

हुजरे यांनी मधमाशा परागीभवनाचे काम कसे करतात हे समजून सांगितले.तासगाव तालुका व तालुका शेतकऱ्यांपर्यंत आग्या ही सज्जत घेऊन जाणार असल्याचे सांगितले. कार्यक्रमाचे प्रास्ताविक समन्वयक डॉ.पी.बी.तेली यांनी केले तर आचार्य प्राणीशास्त्र

विभाग प्रमुख प्रा. ए.ए.खाबडे यांनी मानले. सूत्रसंचालन प्रा. आप्पासाहेब बागल यांनी केले.कार्यक्रमाचा निष्का समन्वयक डॉ.जलका इनामदार, उपप्राचार्य डॉ. ए.के.खाडे, व प्रा.जे.ए. पादव ,सर्व विभागाचे विभाग प्रमुख , प्राध्यापक , प्रशासकीय सेवक व विद्यार्थी मोठ्या संख्येने उपस्थित होते.

PRATIDWANI NEWS PAPER

# मधमाशी निसर्गाला समृद्ध करते : दयावान पाटील

जयप्रकाश | प्रतिनिधी

इस्लामपूर : मधमाशी नष्ट झाली तर सुष्टी संपुष्टात येईल मधमाशी कायबणे ही काळाची गरज आहे. मधमाशी निसर्गाला समृद्ध करते असे उदार मधू अमृत हनी बी कॉन्ग्रेशन अँड रिचर्स सेंटरचे श्री.दयावान पाटील यांनी जयभूपका डॉ.वसंतरावदादा पाटील महाविद्यालय तासगाव येथे प्राणीशास्त्र व जाणववएली विभागाच्या सतीने आयोजित केलेल्या मधुमक्षिका पालन या विषयावरील एक दिवसीय कार्यशाळेत बोलताना काढले.

कार्यक्रमाच्या अध्यक्षस्थानी महाविद्यालयाचे प्राचार्य डॉ. मिलिंद हुजरे होते. पाटील पुढे म्हणाले मधमाशीच्या पालनातून शेतीचे उत्पन्न वाढवणे शक्य आहे.मधमाशी मकरंद गोळा करताना परागीभवन घडवून आणते आजल्याला निसर्ग वाचविण्याची सज्जत तयार करावी लागेल. शेतकऱ्यांमध्ये



तासगाव डॉ. वसंतराव पाटील महाविद्यालय आयोजित मधुमक्षिका पालन विषयावरील कार्यशाळेत कार्यरत असलेले दयावान पाटील.

मधमाशा पालना संदर्भात जागृकता निर्माण होऊ लागली आहे. जंगले कमी झाल्यामुळे आग्या मधमाशा सहस्रांशे सरकू लागल्या आहेत.मधमाशी तिच्या निवासस्थानातून जवळ जवळ दोन किलोमीटर पर्यंत प्रवास करते तिला 'कृषीलक्ष्मी' असे म्हटले जाते.मधमाशांचे फायदे लक्षात घेऊन सर्वांनी

मधमाशीला वाचविण्याच्या सज्जतीत सहभागी व्हावे असे आवाहन त्यांनी केले. लाकडीपेटी मध्ये मधमाशांचे पालन कसे करायचे हे प्रात्यक्षिकासह दाखविले.

अध्यक्षस्थानावरून बोलताना प्राचार्य डॉ.मिलिंद हुजरे यांनी मधमाशा परागीभवनाचे काम कसे करतात हे समजून सांगितले.तासगाव तालुका व तालुका शेतकऱ्यांपर्यंत आग्या ही सज्जत घेऊन जाणार असल्याचे सांगितले. कार्यक्रमाचे प्रास्ताविक समन्वयक डॉ.पी.बी.तेली यांनी केले तर आचार्य प्राणीशास्त्र विभाग प्रमुख प्रा.

ए.ए.खाबडे यांनी मानले. सूत्रसंचालन प्रा. आप्पासाहेब बागल यांनी केले.कार्यक्रमाचा निष्का समन्वयक डॉ.जलका इनामदार,उपप्राचार्य डॉ. ए.के.खाडे, व प्रा.जे.ए. पादव ,सर्व विभागाचे विभाग प्रमुख , प्राध्यापक , प्रशासकीय सेवक व विद्यार्थी मोठ्या संख्येने उपस्थित होते.



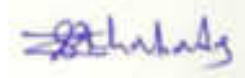
**Principal**

**Dr. Milind S. Hujare**

**P. D. V. P. Mahavidyalaya, Tasgaon**



**Dr. P. B. Teli**  
**Training Coordinator**



**Dr. S. A. Khabade**  
**Professor & Head**  
**Department of Zoology**

“Dissemination of Education for Knowledge, Science, and Culture”  
-Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha,  
Kolhapur  
Padmabhushan Dr. Vasantodada Patil  
Mahavidyalaya, Tasgaon

**DEPARTMENT OF  
ZOOLOGY**

**CERTIFICATE COURSE ON  
“SERICULTURE”**

**2020-2021**



"Dissemination of Education through Knowledge, Science and Culture"

-Shikshanmaharshi Dr. Bapuji Salunkhe  
Shri Swami Vivekanand Shikshan Sanstha's, Kolhapur

Padmbhushan Dr. Vasant Rao Dada Patil Mahavidyala, Tasgaon,  
**Department of Zoology**

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## Notice

15/02/2021

All staff members of zoology here by informed that the committee of B.O.S. will be decided in this meeting so that the presence of all staff should be essential. The meeting will be started on 16/2/2021



Head of Department  
**HEAD**

DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANT RAO DADA PATIL  
MAHVIDYALAYA, TASGAON, DIST. SANGLI

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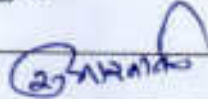





Department of Zoology

**MEETING FOR SYLLABUS SETTING COMMITTEE**


**(B.O.S.)**

16/02/2021

The meeting of syllabus setting committee (B.O.S.) will be organized for the syllabus formation of "SERICULTURE" certificate course on 17/2/2021. The following members of the committee have to present for the syllabus setting.

Sr. No.	Name of Faculty	Designation	Sign.
1	Dr. Khabade S.A.	Chairman	
2	Dr. Teli P.B.	Member	
3	Dr. Bhandare P.S.	Member	
4	Miss Patil P.P.	Member	
5	Miss Gavali C.S.	Member	
6	Miss Kusarkar S.P.	Member	

Yours Faithfully



Course coordinator

**HEAD**

DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTODADA PATIL MAHAVIDYALAYA, TASGAON, DIST. SANGLI

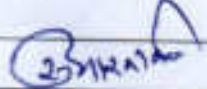





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-Shikshanmaharshi Dr. Bapuji Salunkhe  
Shri Swami Vivekanand Shikshan Sanstha's, Kolhapur

Padmbhushan Dr. Vasant Rao Dada Patil Mahavidyalaya, Tasgaon,  
Department of Zoology

### MINUETS OF MEETING

In the meeting of B.O.S. syllabus setting committee for " SERICULTURE"  
certificate course have decided and conformed the syllabus for this certificate  
course.

Sr. No.	Name of Faculty	Designation	Sign.
1	Dr. Khabade S.A.	Chairman	
2	Dr. Teli P.B.	Member	
3	Dr. Bhandare P.S.	Member	
4	Miss Patil P.P.	Member	
5	Miss Gavali C.S.	Member	
6	Miss Kusarkar S.P.	Member	

  
**Head of Department**  
HEAD  
DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANT RAO DADA PATIL  
MAHAVIDYALAYA, TATGAON, DIST. SANGLI



"Dissemination of Education through Knowledge, Science and Culture"

-Shikshanmaharshi Dr. BapujiSalunkhe  
Shri Swami VivekanandShikshanSanstha's, Kolhapur

**Padmbhushan Dr. VasantodadaPatilMahavidyala, Tasgaon,**

**Department of Zoology**

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## Notice

All the students of B.Sc. Part III are hereby informed that the certificate course in "SERICULTURE" is started from **17/02/2021** up to **22/03/2021**. The presence of this course is compulsory so attain the same.



**Head of Department**

**HEAD**  
**DEPARTMENT OF ZOOLOGY,**  
**PADMABHUSHAN DR. VASANTODADA PATIL**  
**MAHAVIDYALAYA, TASGAON, DIST. SANGLI**

Type of course unit : Compulsary

Duration of Course : six week

17 February 2021 to 22 March 2021

Fees of the course :

Delivery model : Face to face

Language of Instruction : English / Marathi

Course Co-ordinator : Prof. (Dr.) Khabade S. A.

Course Co-coordinator : Dr. Teli P.B.

Intake capacity : 25

Who will apply : 10+2, B.Sc., B.Com., B.A., M.Sc., M.Com., M.A.,

Computer Science.

Hourse of work : 33hrs.

Total hourse : Theory- 24, Practical- 09

**Details of the course:**

- Name of the course** : Certificate course in "Sericulture"  
**Level** : Certificate  
**Stream** : Science and any stream  
**Eligibility criteria** : 10+2, B.Sc., B.Com., B.A., M.Sc., M.Com., M.A.,  
Computer Science.  
**Duration of the course** : 1.5 Months i.e 6weeks i.e 45 days  
**Fees of the course** : Free  
**Delivery model** : Face to face  
**Language of Instruction** : English / Marathi  
**Selection ?admission criteria** : First come first serve.  
**Lecture/ Practical Time** : 5.00 to 6.00 PM.



**Available infrastructure:** Well equipped laboratory, small and large Scale Vermiculture units.

**Teaching staff** : Well qualified, experienced Guest Lecturers and Eminent professors will be invited

**Non teaching staff** : 01 Laboratory Assistant and 02 Laboratory Attendants

### **Examination structure & schedule:**

At the end of course the examination will be conducted. Its notice & time table will be displayed for communication to the students at least before 10 days of the date of examination.

1. Course VBT-01 Theory paper (objective/short answer type/Long answer type) = 50marks, Two hours duration.
2. Course VBT-02 Practical paper =50 marks, two hours duration

Marking scheme & Award of grades: Average of the marks obtained in each paper will be calculated as:  $50+50=100/2 = 50$ ;

- i) 8-10 marks = 1point, C' grade – pass;
- ii) 10-20 marks = 2 points, B' grade;
- iii) 20-30 marks = 3points, B+ grade;
- iv) 30-40 marks =4points, A' grade;
- v) 40-50 marks =5points, A+ grade

Award of Certificate carrying grades: after successful completion of course colorful certificate indicating grade will be awarded to the candidate.

**Reservation:** NA

## Course Content: Syllabus/Program SCHEME

Vermicomposting Biotechnology as one of the Certificate Course at Undergraduate, graduate and Post graduate students level

<b>Credit to be earned</b>	<b>04 credit</b>
Theory paper	03 credit
Practical course /paper	01 credit

### Proposed distribution of the course structure

Sr.No.	Code	Title of the paper Vermicomposting Biotechnology	Credit pattern in L:T:P	Credit value
1	VBTT-01	VBT Theory Related	3:0:0	03
2	VBTP-02	VBT Practical Related	0:0:1	01

Open selective course for any students enrolled in the College from different Disciplines

**PADMBHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,  
TASGAON  
DEPARTMENT OF ZOOLOGY**

**CERTIFICATE COURSE IN SERICULTURE**

**Syllabus of Certificate Course in Sericulture**

**Paper-I: INTRODUCTION TO SERICULTURE**

**Unit- I:History and scope of Sericulture. (10)**

Mulberry and non-mulberry sericulture and its Life Cycle.

Geographical distribution of Distribution.scope of sericulture in India.

**Unit- II: soil management and cultivation of mulberry (10)**

Agro climatic zones and agro climatic conditions for mulberry cultivation, Site suitability for mulberry garden establishment, Soil Management.

**Mulberry crop production-** Planning for establishment of mulberry garden, Concept and establishment of mulberry garden for chawki& late age worms.

**Paper-II: SILKWORM REARING & ITS ECONOMICS**

**Unit I: Pre-requisites for rearing (05)**

Selection of silkworm breeds for rearing, Disinfecting silkworm rearing house and appliances, silkworm rearing house, characteristics of rearing house.

**Unit II: Egg handling, Incubation,Chawkiand Late Age Rearing (15)**



Pre-incubation care of silkworm eggs, incubation, black boxing, hatching, brushing of larvae, chawki rearing, Characteristics of late age silkworms, environmental conditions for late age silkworm rearing, leaf harvest, transportation and preservation.

<b>Sr. No</b>	<b>Code</b>	<b>Paper Title</b>	<b>Theory Hours</b>	<b>Practical Hours</b>	<b>External Marks</b>	<b>Internal Marks</b>	<b>Total</b>
1	Paper I	Introduction to Sericulture	20	10	80	20	100
2	Paper II	Silkworm Rearing & its economics	20	10	80	20	100

## B.Sc III Zoology Presentee(2020-21)

Sr.No	Name of the Students	Date	Date	Date	Date	Date
		17/2/21	18/2/21	19/2/21	22/2/21	23/2/21
1.	Bodake Sakshi Shankar	<u>Bodake</u>	<u>Bodake</u>	<u>Bodake</u>	<u>Bodake</u>	<u>Bodake</u>
2.	Erandole Shubhangi Mahadev	<u>Erandole</u>	<u>Erandole</u>	<u>Erandole</u>	<u>Erandole</u>	<u>Erandole</u>
3.	Ghagare Komal Bhairu	<u>Ghagare</u>	<u>Ghagare</u>	<u>Ghagare</u>	<u>Ghagare</u>	<u>Ghagare</u>
4.	Jadhav Gouri Raghunath	<u>GRJadhav</u>	<u>GRJadhav</u>	<u>GRJadhav</u>	<u>GRJadhav</u>	<u>GRJadhav</u>
5.	Jamadade Mayuri Vishnu	<u>Jamadade</u>	<u>Jamadade</u>	<u>Jamadade</u>	<u>Jamadade</u>	<u>Jamadade</u>
6.	Kamble Prachi Vijay	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>
7.	Kamble Shweta Vikas	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>
8.	Mali Aishwarya Abaso	<u>Mali</u>	<u>Mali</u>	<u>Mali</u>	<u>Mali</u>	<u>Mali</u>
9.	Mohite Priti Shankar	<u>Mohite</u>	<u>Mohite</u>	<u>Mohite</u>	<u>Mohite</u>	<u>Mohite</u>
10.	Patil Prasad Kailas	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>
11.	Patil Pratiksha Ravsaheb	<u>P.patil</u>	<u>P.patil</u>	<u>P.patil</u>	<u>P.patil</u>	<u>P.patil</u>
12.	Patil Preeti Rajendra	<u>PRPatil</u>	<u>PRPatil</u>	<u>PRPatil</u>	<u>PRPatil</u>	<u>P.R.Patil</u>
13.	Patil Rupali Parasharam	<u>R.P.Patil</u>	<u>R.P.Patil</u>	<u>R.P.Patil</u>	<u>R.P.Patil</u>	<u>R.P.Patil</u>
14.	Patil Shivani Avinash	<u>SPatil</u>	<u>SPatil</u>	<u>SPatil</u>	<u>SPatil</u>	<u>SPatil</u>
15.	Pawar Surbhi Rajendra	<u>SPawar</u>	<u>SPawar</u>	<u>SPawar</u>	<u>SPawar</u>	<u>SPawar</u>
16.	Taur Shraddha Kailas	<u>Shraddha</u>	<u>Shraddha</u>	<u>Shraddha</u>	<u>Shraddha</u>	<u>Shraddha</u>
17.	Jadhav Suhas Shivaji	<u>Suhas</u>	<u>Suhas</u>	<u>Suhas</u>	<u>Suhas</u>	<u>Suhas</u>
18.	Therant Dipti Laxman	<u>Therant</u>	<u>Therant</u>	<u>Therant</u>	<u>Therant</u>	<u>Therant</u>



## B.Sc III Zoology Presentee(2020-21)

Sr.No	Name of the Students	Date	Date	Date	Date	Date
		24/2/21	25/2/21	26/2/21	1/3/21	2/3/21
1.	Bodake Sakshi Shankar	<u>Bodake</u>	<u>Bodake</u>	<u>Bodake</u>	<u>Bodake</u>	<u>Bodake</u>
2.	Erandole Shubhangi Mahadev	<u>erandole</u>	<u>erandole</u>	<u>erandole</u>	<u>erandole</u>	<u>erandole</u>
3.	Ghagare Komal Bhairu	<u>Ghagare</u>	<u>Ghagare</u>	<u>Ghagare</u>	<u>Ghagare</u>	<u>Ghagare</u>
4.	Jadhav Gouri Raghunath	<u>GJRachav</u>	<u>GJRachav</u>	<u>GJRachav</u>	<u>GJRachav</u>	<u>GJRachav</u>
5.	Jamadade Mayuri Vishnu	<u>Jamadade</u>	<u>Jamadade</u>	<u>Jamadade</u>	<u>Jamadade</u>	<u>Jamadade</u>
6.	Kamble Prachi Vijay	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>
7.	Kamble Shweta Vikas	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>
8.	Mali Aishwarya Abaso	<u>Mali</u>	<u>Mali</u>	<u>Mali</u>	<u>Mali</u>	<u>Mali</u>
9.	Mohite Priti Shankar	<u>Mohite</u>	<u>Mohite</u>	<u>Mohite</u>	<u>Mohite</u>	<u>Mohite</u>
10.	Patil Prasad Kailas	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>
11.	Patil Pratiksha Ravsaheb	<u>P.patil</u>	<u>P.patil</u>	<u>P.patil</u>	<u>P.patil</u>	<u>P.patil</u>
12.	Patil Preeti Rajendra	<u>P.R.Patil</u>	<u>P.R.Patil</u>	<u>P.R.Patil</u>	<u>P.R.Patil</u>	<u>P.R.Patil</u>
13.	Patil Rupali Parasharam	<u>R.P.Patil</u>	<u>R.P.Patil</u>	<u>R.P.Patil</u>	<u>R.P.Patil</u>	<u>R.P.Patil</u>
14.	Patil Shivani Avinash	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>
15.	Pawar Surbhi Rajendra	<u>Pawar</u>	<u>Pawar</u>	<u>Pawar</u>	<u>Pawar</u>	<u>Pawar</u>
16.	Taur Shraddha Kailas	<u>Taur</u>	<u>Taur</u>	<u>Taur</u>	<u>Taur</u>	<u>Taur</u>
17.	Jadhav Suhas Shivaji	<u>Jadhav</u>	<u>Jadhav</u>	<u>Jadhav</u>	<u>Jadhav</u>	<u>Jadhav</u>
18.	Thorat Dipti Laxman	<u>Thorat</u>	<u>Thorat</u>	<u>Thorat</u>	<u>Thorat</u>	<u>Thorat</u>



## B.Sc III Zoology Presentee(2020-21)

Sr.No	Name of the Students	Date	Date	Date	Date	Date
		4/3/21	8/3/21	9/3/21	12/3/21	15/3/21
1.	Bodake Sakshi Shankar	<u>Bodake</u>	<u>Bodake</u>	<u>Bodake</u>	<u>Bodake</u>	<u>Bodake</u>
2.	Erandole Shubhangi Mahadev	<u>Erandole</u>	<u>Erandole</u>	<u>Erandole</u>	<u>Erandole</u>	<u>Erandole</u>
3.	Ghagare Komal Bhairu	<u>Ghagare</u>	<u>Ghagare</u>	<u>Ghagare</u>	<u>Ghagare</u>	<u>Ghagare</u>
4.	Jadhav Gouri Raghunath	<u>G.R.Jadhav</u>	<u>G.R.Jadhav</u>	<u>G.R.Jadhav</u>	<u>G.R.Jadhav</u>	<u>G.R.Jadhav</u>
5.	Jamadade Mayuri Vishnu	<u>Jamadade</u>	<u>Jamadade</u>	<u>Jamadade</u>	<u>Jamadade</u>	<u>Jamadade</u>
6.	Kamble Prachi Vijay	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>
7.	Kamble Shweta Vikas	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>	<u>Kamble</u>
8.	Mali Aishwarya Abaso	<u>Mali</u>	<u>Mali</u>	<u>Mali</u>	<u>Mali</u>	<u>Mali</u>
9.	Mohite Priti Shankar	<u>Mohite</u>	<u>Mohite</u>	<u>Mohite</u>	<u>Mohite</u>	<u>Mohite</u>
10.	Patil Prasad Kailas	<u>P.Patil</u>	<u>P.Patil</u>	<u>P.Patil</u>	<u>P.Patil</u>	<u>P.Patil</u>
11.	Patil Pratiksha Ravsaheb	<u>P.patil</u>	<u>P.patil</u>	<u>P.patil</u>	<u>P.patil</u>	<u>P.patil</u>
12.	Patil Preeti Rajendra	<u>P.Patil</u>	<u>P.Patil</u>	<u>P.Patil</u>	<u>P.Patil</u>	<u>P.Patil</u>
13.	Patil Rupali Parasharam	<u>R.P.Patil</u>	<u>R.P.Patil</u>	<u>R.P.Patil</u>	<u>R.P.Patil</u>	<u>R.P.Patil</u>
14.	Patil Shivani Avinash	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>	<u>Patil</u>
15.	Pawar Surbhi Rajendra	<u>Pawar</u>	<u>Pawar</u>	<u>Pawar</u>	<u>Pawar</u>	<u>Pawar</u>
16.	Taur Shraddha Kailas	<u>Taur</u>	<u>Taur</u>	<u>Taur</u>	<u>Taur</u>	<u>Taur</u>
17.	Jadhav Suhas Shivaji	<u>Jadhav</u>	<u>Jadhav</u>	<u>Jadhav</u>	<u>Jadhav</u>	<u>Jadhav</u>
18.	Thorat Dipti Laxman	<u>Thorat</u>	<u>Thorat</u>	<u>Thorat</u>	<u>Thorat</u>	<u>Thorat</u>



## B.Sc III Zoology Presentee(2020-21)

Sr.No	Name of the Students	Date	Date	Date	Date	Date
		16/3/21	17/3/21	18/3/21	19/3/21	22/3/21
1.	Bodake Sakshi Shankar	<u>Bodake</u>	<u>Bodake</u>	<u>Bodake</u>	<u>Bodake</u>	<u>Bodake</u>
2.	Erandole Shubhangi Mahadev	<u>merandole</u>	<u>merandole</u>	<u>merandole</u>	<u>merandole</u>	<u>merandole</u>
3.	Ghagare Komal Bhairu	<u>Bhagare</u>	<u>Bhagare</u>	<u>Bhagare</u>	<u>Bhagare</u>	<u>Bhagare</u>
4.	Jadhav Gouri Raghunath	<u>GhRachav</u>	<u>GhRachav</u>	<u>GhRachav</u>	<u>GhRachav</u>	<u>GhRachav</u>
5.	Jamadade Mayuri Vishnu	<u>@Jamadev</u>	<u>@Jamadev</u>	<u>@Jamadev</u>	<u>@Jamadev</u>	<u>@Jamadev</u>
6.	Kamble Prachi Vijay	<u>nkamb</u>	<u>nkamb</u>	<u>nkamb</u>	<u>nkamb</u>	<u>nkamb</u>
7.	Kamble Shweta Vikas	<u>Bkamble</u>	<u>Bkamble</u>	<u>Bkamble</u>	<u>Bkamble</u>	<u>Bkamble</u>
8.	Mali Aishwarya Abaso	<u>Bamal</u>	<u>Bamal</u>	<u>Bamal</u>	<u>Bamal</u>	<u>Bamal</u>
9.	Mohite Priti Shankar	<u>Psmohite.</u>	<u>Psmohite.</u>	<u>Psmohite.</u>	<u>Psmohite.</u>	<u>Psmohite.</u>
10.	Patil Prasad Kailas	<u>Rkavir</u>	<u>Rkavir</u>	<u>Rkavir</u>	<u>Rkavir</u>	<u>Rkavir</u>
11.	Patil Pratiksha Ravsaheb	<u>P.patil</u>	<u>P.patil</u>	<u>P.patil</u>	<u>P.patil</u>	<u>P.patil.</u>
12.	Patil Preeti Rajendra	<u>P.RPatil</u>	<u>P.RPatil</u>	<u>P.RPatil</u>	<u>P.RPatil</u>	<u>P.RPatil</u>
13.	Patil Rupali Parasharam	<u>R.P.Patil</u>	<u>R.P.Patil</u>	<u>R.P.Patil</u>	<u>R.P.Patil</u>	<u>R.P.Patil</u>
14.	Patil Shivani Avinash	<u>SpPatil</u>	<u>SpPatil</u>	<u>SpPatil</u>	<u>SpPatil</u>	<u>SpPatil.</u>
15.	Pawar Surbhi Rajendra	<u>Spawar</u>	<u>Spawar</u>	<u>Spawar</u>	<u>Spawar</u>	<u>Spawar</u>
16.	Taur Shraddha Kailas	<u>Staur</u>	<u>Staur</u>	<u>Staur</u>	<u>Staur</u>	<u>Staur</u>
17.	Jadhav Suhas Shivaji	<u>Sulav</u>	<u>Sulav</u>	<u>Sulav</u>	<u>Sulav</u>	<u>Sulav</u>
18.	Thorat Dipti Laxman	<u>Thorat</u>	<u>Thorat</u>	<u>Thorat</u>	<u>Thorat</u>	<u>Thorat</u>

"Dissemination of Education through Knowledge, Science and Culture"

-Shikshanmaharshi Dr. BapujiSalunkhe

Shri Swami VivekanandShikshanSanstha's, Kolhapur

Padmbhushan Dr. VasanttraodadaPatilMahavidyala, Tasgaon,  
Certificate course on" SERICULTURE"

## Department of Zoology

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### Notice

22/03 /2021

All the B.Sc. III students of Zoology department are hereby informed that the exam on "Sericulture Certificate Course "will be held on 24/03/2021. The attendance should be compulsory.

Head of Department



Prof. (Dr.) S.A.Khabade)

**HEAD**  
DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAO DADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI



Dr. Bapuji Salunkhe

**Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.**

(The Centenary Year of Shikshanmaharshi Dr. Bapuji Salunkhe)

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,**

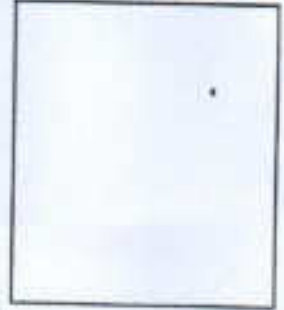
**TASGAON, TAL. TASGAON, DIST: SANGLI**

**( MAHARASHTRA)**

**PIN. 416312**

**ADMISSION FORM**

**CERTIFICATE COURSE IN  
SERICULTURE 2020-21**



1. Name of the student Patil Shivani Avinash.....
2. Subject Zoology..... class III.....
3. Date of birth 10-4-2001.....
4. Caste Hindu maratha.....
5. Permanent address Vrundavan colony, Tasgaon.....  
.....
6. Contact Number 8010142071.....
7. E-mail Patil Shivani Avinash 123 @ gmail . com ......
8. Paid the fees of Rs 100..... on.....

Patil  
Signature of the student

Course co-ordinator

Sharma  
Head of the Department

Principal

**HEAD**  
**DEPARTMENT OF ZOOLOGY**  
**PADMABHUSHAN DR. VASANTRAODADA PATIL**  
**MAHAVIDYALAYA, TASGAON, DIST. SANGLI**

Dr. Bapuji Salunkhe

Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.

(The Centenary Year of Shikshanmaharshi Dr. Bapuji Salunkhe)

PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,

TASGAON, TAL. TASGAON, DIST: SANGLI

( MAHARASHTRA)

PIN. 416312

## ADMISSION FORM

### CERTIFICATE COURSE IN SERICULTURE 2020-21



1. Name of the student ..... Jadhav Gauri Raghunath .....
2. Subject..... Zoology ..... class..... Bsc III .....
3. Date of birth..... 11-4-2000 .....
4. Caste..... open .....
5. Permanent address..... ALP Karoji (M) .....
- ..... Tal: Miraj Dist - sangli .....
6. Contact Number..... 7507002118 .....
7. E-mail..... gaurijadhav890@gmail.com .....
8. Paid the fees of Rs..... 100 ..... on.....

G.R. Jadhav  
Signature of the student

Course co-ordinator

(Signature)  
Head of the Department

Principal

**HEAD**  
DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI



Dr. Bapuji Salunkhe

**Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.**

(The Centenary Year of Shikshanmaharshi Dr. Bapuji Salunkhe)

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,**

**TASGAON, TAL. TASGAON, DIST: SANGLI**

**( MAHARASHTRA)**

**PIN. 416312**



**ADMISSION FORM**

**CERTIFICATE COURSE IN  
SERICULTURE 2020-21**

1. Name of the student ..... Erandale Shubhangi Mahadev.....
2. Subject..... Zoology..... class..... BSC. - III.....
3. Date of birth..... 18-08-2000.....
4. Caste..... ABC.....
5. Permanent address.. At/P. Manerajuri, Tal-Tasgaon.....  
Dist. - Sangli.....
6. Contact Number..... 8605341999.....
7. E-mail..... erandale.shubhangi.m@gmail.com.....
8. Paid the fees of Rs..... 100..... on.....

Smerandale

Signature of the student

Course co-ordinator

[Signature]

Head of the Department

Principal

**HEAD  
DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAO DADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI**



Dr. Bapuji Salunkhe

Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.

(The Centenary Year of Shikshanmaharshi Dr. Bapuji Salunkhe)

PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,

TASGAON, TAL. TASGAON, DIST: SANGLI

( MAHARASHTRA)

PIN. 416312



## ADMISSION FORM

### CERTIFICATE COURSE IN SERICULTURE 2020-21

1. Name of the student ..... Jamadade mayuri vishnu .....
2. Subject..... Zoology ..... class..... B.Sc-III .....
3. Date of birth..... 4/9/2000 .....
4. Caste..... open .....
5. Permanent address..... A/P Manerajuri Tal - Tasgaon .....
- ..... Dist - sangli .....
6. Contact Number ..... 9158441000 .....
7. E-mail..... mayurijamdade121@gmail.com .....
8. Paid the fees of Rs..... 100 ..... on.....

*Jamadade*

Signature of the student

Course co-ordinator

*(Signature)*

Head of the Department

Principal

**HEAD**

DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI

Dr. Bapuji Salunkhe

**Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.**

(The Centenary Year of Shikshanmaharshi Dr. Bapuji Salunkhe)

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,**

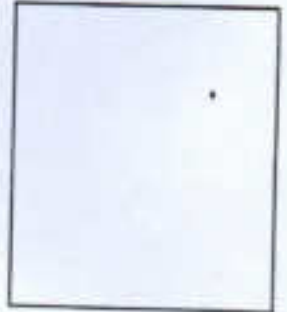
**TASGAON, TAL. TASGAON, DIST: SANGLI**

**( MAHARASHTRA)**

**PIN. 416312**

**ADMISSION FORM**

**CERTIFICATE COURSE IN  
SERICULTURE 2020-21**



1. Name of the student ..... Mali Aishwarya Abaso .....
2. Subject..... Zoology ..... class..... BSc-III .....
3. Date of birth..... 9-08-2000 .....
4. Caste..... OBC Hindu Mali .....
5. Permanent address..... Aamrai mala, Kavalapur .....
- ..... Tal- Miraj Dist - Sangli .....
6. Contact Number..... 9249151633 .....
7. E-mail..... aishwarya.mali.2000@gmail.com .....
8. Paid the fees of Rs..... on.....

Aamrai  
Signature of the student

Course co-ordinator

[Signature]  
Head of the Department

Principal

**HEAD**  
**DEPARTMENT OF ZOOLOGY,**  
**PADMABHUSHAN DR. VASANTRAODADA PATIL**  
**MAHAVIDYALAYA, TASGAON, DIST. SANGLI**



Dr. Bapuji Salunkhe

**Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.**

(The Centenary Year of Shikshanmaharshi Dr. Bapuji Salunkhe)

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,**

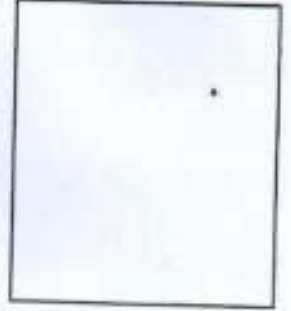
**TASGAON, TAL. TASGAON, DIST: SANGLI**

**( MAHARASHTRA)**

**PIN. 416312**

**ADMISSION FORM**

**CERTIFICATE COURSE IN  
SERICULTURE 2020-21**



1. Name of the student Thorat Dipti laxman
2. Subject Zoology class B.sc-III
3. Date of birth 5/10/1998
4. Caste NT-C Hindu-Dhanger
5. Permanent address A/P- Kayathe-ekand  
Tal- Tasgaon, Dist - sangli
6. Contact Number 9766903936
7. E-mail thoratdipti1@gmail.com
8. Paid the fees of Rs 100 on

Thorat  
Signature of the student

Course co-ordinator

[Signature]  
Head of the Department

Principal

**HEAD**  
**DEPARTMENT OF ZOOLOGY**  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI



Dr. Bapuji Salunkhe

**Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.**

(The Centenary Year of Shikshanmaharshi Dr. Bapuji Salunkhe)

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,**

**TASGAON, TAL. TASGAON, DIST: SANGLI**

**( MAHARASHTRA)**

**PIN. 416312**

**ADMISSION FORM**

**CERTIFICATE COURSE IN  
SERICULTURE 2020-21**



1. Name of the student ..... Patil. Rupali. parasharam .....
2. Subject..... zoology ..... class..... B.Sc III .....
3. Date of birth..... 23-June-2000 .....
4. Caste..... Hindu - Maratha .....
5. Permanent address..... A/p. Aravade Tal-Tasgaon .....
- ..... Dist - Sangli .....
6. Contact Number..... 9766380742 .....
7. E-mail..... rupalipatil4671@gmail.com .....
8. Paid the fees of Rs..... 100 ..... on.....

R.P. Patil

Signature of the student

Course co-ordinator

(Signature)

Head of the Department

Principal

**HEAD**

**DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST: SANGLI**

Dr. Bapuji Salunkhe

**Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.**

(The Centenary Year of Shikshanmaharshi Dr. Bapuji Salunkhe)

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,**

**TASGAON, TAL. TASGAON, DIST: SANGLI**

**( MAHARASHTRA)**

**PIN. 416312**



## ADMISSION FORM

### CERTIFICATE COURSE IN SERICULTURE 2020-21

1. Name of the student ..... Jadhav Subas Shivaji .....
2. Subject..... Zoology ..... class..... B.Sc. III .....
3. Date of birth..... 26/07/1999 .....
4. Caste..... Hindu - Maratha .....
5. Permanent address..... At- Narsewadi Po - Ped .....
- Tal- Tasgaon Dist:- Sangli PinCode: 416312. .....
6. Contact Number..... 7057353772 / 9765785268 .....
7. E-mail..... jadhavs2157@gmail.com. .....
8. Paid the fees of Rs. 100 ..... on..... .....

*Jadhav*

Signature of the student

Course co-ordinator

*B. Mendhe*

Head of the Department

Principal

**HEAD**  
**DEPARTMENT OF ZOOLOGY,**  
**PADMABHUSHAN DR. VASANTRAO DADA PATIL**  
**MAHAVIDYALAYA, TASGAON, DIST. SANGLI**



Dr. Bapuji Salunkhe

Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.

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PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,

TASGAON, TAL. TASGAON, DIST: SANGLI

( MAHARASHTRA)

PIN. 416312



## ADMISSION FORM

### CERTIFICATE COURSE IN SERICULTURE 2020-21

1. Name of the student ... Patil Prasad Kailas .....
2. Subject... B.sc-III, zoology class... B.sc-III .....
3. Date of birth... 10/02/2000 .....
4. Caste... Hindu (Parit) .....
5. Permanent address... Kharale, Post: Kalundre, Tal: Shirala, Dist: Sangli .....
6. Contact Number... 9158291722 .....
7. E-mail... Prasad.Kpatil58@gmail.com .....
8. Paid the fees of Rs... 100/- on .....

Prasad

Signature of the student

Course co-ordinator

Prasad

Head of the Department

Principal

HEAD  
DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI



Dr. Bapuji Salunkhe

**Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.**

(The Centenary Year of Shikshanmaharshi Dr. Bapuji Salunkhe)

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,**

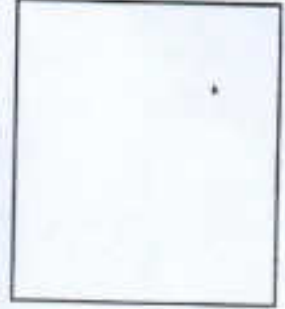
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**( MAHARASHTRA)**

**PIN. 416312**

**ADMISSION FORM**

**CERTIFICATE COURSE IN  
SERICULTURE 2020-21**



1. Name of the student MISS - Surbhi Rajendra Pawar
2. Subject Zoology class B.Sc-III
3. Date of birth 10/08/2000
4. Caste Hindu - Maratha
5. Permanent address A.P. Kavalapur
6. Contact Number 9503971778
7. E-mail pawarsurbhi02000@gmail.com
8. Paid the fees of Rs 1000 on .....

Saur

Signature of the student

Course co-ordinator

S. M. ...

Head of the Department

Principal

**HEAD**

**DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI**

Dr. Bapuji Salunkhe

**Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.**

(The Centenary Year of Shikshanmaharshi Dr. Bapuji Salunkhe)

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,**

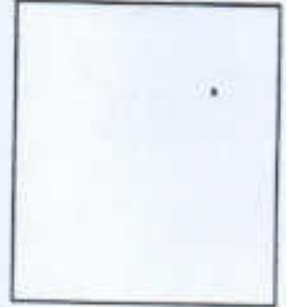
**TASGAON, TAL. TASGAON, DIST: SANGLI**

**( MAHARASHTRA)**

**PIN. 416312**

## ADMISSION FORM

### CERTIFICATE COURSE IN SERICULTURE 2020-21



1. Name of the student ..... Patil Preeti Rajendra .....
2. Subject..... Zoology ..... class..... B.Sc III .....
3. Date of birth..... 28-6-2001 .....
4. Caste..... Hindu - Maratha .....
5. Permanent address... A.P. - chinchani Tal - Tasgaon  
..... Dist - sangli .....
6. Contact Number..... 8830905652 .....
7. E-mail..... PreetiPatil1438 @ gmail . com .....
8. Paid the fees of Rs..... 1000 ..... on .....

P.R. Patil .

Signature of the student

Course co-ordinator

Head of the Department

Principal

**HEAD**  
DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI



Dr. Bapuji Salunkhe

Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.

(The Centenary Year of Shikshanmaharshi Dr. Bapuji Salunkhe)

PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,

TASGAON, TAL. TASGAON, DIST: SANGLI

( MAHARASHTRA)

PIN. 416312



## ADMISSION FORM

### CERTIFICATE COURSE IN SERICULTURE 2020-21

1. Name of the student ..... Bodake Sakshi Shankar .....
2. Subject..... Zoology .....class.....
3. Date of birth..... 24/11/2000 .....
4. Caste..... Hindu lingayat wani .....
5. Permanent address... Alp. Hatnur, Tal. Tasgaon .....
- ..... Dist. Sangli .....
6. Contact Number..... 7498048504 .....
7. E-mail..... bodakesakshi2411@gmail.com .....
8. Paid the fees of Rs..... 100/- .....on.....

Bodake  
Signature of the student

Course co-ordinator

Head of the Department

Principal

HEAD  
DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI



Dr. Bapuji Salunkhe

Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.

(The Centenary Year of Shikshanmaharshi Dr. Bapuji Salunkhe)

PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,

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( MAHARASHTRA)

PIN. 416312



ADMISSION FORM  
CERTIFICATE COURSE IN  
SERICULTURE 2020-21

1. Name of the student ..... Mohite Priti Shankar.....
2. Subject..... Zoology..... class..... B.Sc - III.....
3. Date of birth..... 7-01-2001.....
4. Caste..... Hindu - Mang.....
5. Permanent address..... A/P. Kavalapur, Tal. Miraj,  
..... Dist. Sangli.....
6. Contact Number..... 8767434116.....
7. E-mail..... Pritimohite544@gmail.com.....
8. Paid the fees of Rs. 100/- on.....

*P. Mohite*

Signature of the student

Course co-ordinator

*[Signature]*

Head of the Department

Principal

DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI

Dr. Bapuji Salunkhe

**Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.**

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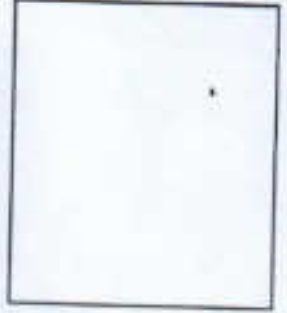
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**TASGAON, TAL. TASGAON, DIST: SANGLI**

**( MAHARASHTRA)**

**PIN. 416312**

**ADMISSION FORM**  
**CERTIFICATE COURSE IN**  
**SERICULTURE 2020-21**



1. Name of the student Kamble Shweta Vikas
2. Subject Zoology class BSc III
3. Date of birth 01-01-2000
4. Caste Hindu - Mahar
5. Permanent address A.t. Bhilawadi, Vasantdada Nagar,  
Nagar, tal - Palus, Dist - Sangli
6. Contact Number 996768271
7. E-mail shweta.vikaskamble@gmail.com
8. Paid the fees of Rs 100 on

Kamble  
Signature of the student

Course co-ordinator

Salunkhe  
Head of the Department

Principal

**HEAD**  
**DEPARTMENT OF ZOOLOGY,**  
**PADMABHUSHAN DR. VASANTRAODADA PATIL**  
**MAHAVIDYALAYA, TASHAON, DIST. SANGLI**



Dr. Bapuji Salunkhe

**Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.**

(The Centenary Year of Shikshanmaharshi Dr. Bapuji Salunkhe)

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,**

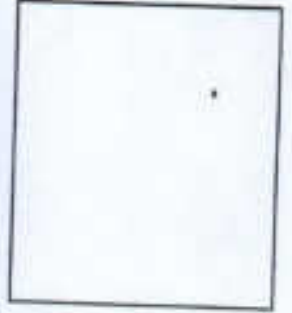
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**( MAHARASHTRA)**

**PIN. 416312**

## ADMISSION FORM

### CERTIFICATE COURSE IN SERICULTURE 2020-21



1. Name of the student ..... Ghagare ..... Komal ..... Bhairu .....
2. Subject..... Zoology ..... class..... B. Sc. III .....
3. Date of birth..... 20/11/2000 .....
4. Caste..... Hindu ..... Dhangar .....
5. Permanent address..... At. Malwadi ..... Post - Bhilawadi  
..... Tal. Palus ..... Dist. Sangli .....
6. Contact Number..... 9307401809 .....
7. E-mail..... kg320283@gmail.com .....
8. Paid the fees of Rs..... 100 ..... on.....

*Ghagare*

Signature of the student

Course co-ordinator

*25/12/20*

Head of the Department

Principal

HEAD

DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI



Dr. Bapuji Salunkhe

**Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.**

(The Centenary Year of Shikshanmaharshi Dr. Bapuji Salunkhe)

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,**

**TASGAON, TAL. TASGAON, DIST: SANGLI**

**( MAHARASHTRA)**

**PIN. 416312**



**ADMISSION FORM**  
**CERTIFICATE COURSE IN**  
**SERICULTURE 2020-21**

1. Name of the student ..... Kamble Prachi Vijay .....
2. Subject..... Zoology ..... class..... Bsc III .....
3. Date of birth..... 13/2/2001 .....
4. Caste..... SC .....
5. Permanent address..... At. Malawadi (shivajinagar) .....  
post. Bhilawadi Tal. Palus. Dist. Sangli. .....
6. Contact Number..... 9975958311 .....
7. E-mail..... Kambleprachi1112@gmail.com .....
8. Paid the fees of Rs..... 100/- .....on.....

Prachi

Signature of the student

Course co-ordinator

[Signature]

Head of the Department

Principal

**HEAD**  
**DEPARTMENT OF ZOOLOGY,**  
**PADMABHUSHAN DR. VASANTRAODADA PATIL**  
**MAHAVIDYALAYA, TASGAON, DIST. SANGLI**

Dr. Bapuji Salunkhe

Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.

(The Centenary Year of Shikshanmaharshi Dr. Bapuji Salunkhe)

PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,

TASGAON, TAL. TASGAON, DIST: SANGLI

( MAHARASHTRA)


PIN. 416312




## ADMISSION FORM

### CERTIFICATE COURSE IN SERICULTURE 2020-21

1. Name of the student Miss. Shradha Kailas Taur
2. Subject Zoology class B.Sc. III
3. Date of birth March 17th, 2000
4. Caste Open Hindu - Maratha
5. Permanent address Near. Bharati School, Tasgaon
6. Contact Number 8767664139
7. E-mail shradhataur17@gmail.com
8. Paid the fees of Rs. ₹ 100/- on -

  
Signature of the student

Course co-ordinator

  
Head of the Department

Principal

DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI



Dr. Bapuji Salunkhe

Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.

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PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,

TASGAON, TAL. TASGAON, DIST: SANGLI

( MAHARASHTRA)

PIN. 416312



ADMISSION FORM  
CERTIFICATE COURSE IN  
SERICULTURE 2020-21

1. Name of the student .... Patil Pratiksha Ravsaheb .....
2. Subject..... Zoology ..... class.....
3. Date of birth..... 30 - November 1998 .....
4. Caste..... Hindu Maratha .....
5. Permanent address..... Near Renuka mandir  
..... vijaynagar gatti no. 1, vishrambag Sangli .....
6. Contact Number..... 9359093850 .....
7. E-mail..... pratikshapatil@gmail.com .....
8. Paid the fees of Rs..... 100/- ..... on.....

P. patil.

Signature of the student

Course co-ordinator

(Signature)

Head of the Department

Principal

HEAD  
DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI



## Zoology Certificate Course In Zoology 2020-21

### Student Enrollment List For Certificate course in "Sericulture"

Sr.No	Roll No.	Name of The Students	Signature
1	6101	BODAKE SAKSHI SHANKAR	<u>Bodakass</u>
2	6103	ERANDOLE SHUBHANGI MAHADEV	<u>E.S.M.</u>
3	6104	GHAGARE KOMAL BHAIRU	<u>KBhagare</u>
4	6105	JADHAV GOURI RAGHUNATH	<u>Gauri J</u>
5	6106	JADHAV SUHAS SHIVAJI	<u>S.S. Jadhav</u>
6	6107	JAMADADE MAYURI VISHNU	<u>Jamadda</u>
7	6108	KAMBLE PRACHI VIJAY	<u>P.V. Kamble</u>
8	6109	KAMBLE SHWETA VIKAS	<u>S.Kamble</u>
9	6110	MALI AISHWARYA ABASO	<u>A.Mali</u>
10	6111	MOHITE PRITI SHANKAR	<u>P.Mohite</u>
11	6112	PATIL PRASAD KAILAS	<u>P.Patil</u>
12	6113	PATIL PRATIKSHA RAVSAHEB	<u>P.P. Patil</u>
13	6114	PATIL PREETI RAJENDRA	<u>P.R. Patil</u>
14	6115	PATIL RUPALI PARASHARAM	<u>P.Patil</u>
15	6116	PATIL SHIVANI AVINASH	<u>S.Patil</u>
16	6117	PAWAR SURBHI RAJENDRA	<u>SR Pawar</u>
17	6118	TAUR SHRADDHA KAILAS	<u>Taur</u>
18	6119	THORAT DIPTI LAXMAN	<u>Dipti</u>
19	5756	MALI NIVEDITA GAJANAN	<u>N. G. Mali</u>
20	5757	MALI SAKSHI MILIND	<u>Mali</u>
21	5758	MANE PALLAVI APPASO	<u>P.A. Mane</u>
22	5759	MANE SAYALI SHAHAJI	<u>S.D. Mane</u>
23	5760	MANE SONALI SUDHAKAR	<u>Mane</u>
24	5761	MANE SWAPNALI PRAKASH	<u>M.A.Y.</u>
25	5762	MOHITE AISHWARYA VINOD	<u>P.A. Mohite</u>
26	5763	MOHITE PRANALI ADHIKRAO	<u>Mohite P</u>
27	5764	MORE ADARSH POPAT	<u>Patil</u>
28	5765	PARALE ASAWARI ADINATH	<u>P.S. Jamir Khan</u>
29	5766	PATHAN SWALIYA JAMIRKHAN	

30	5767	PATIL AJAY SAMBHAJI	A. S. Patil
31	5768	PATIL AKSHADA SUNIL	Akshada
32	5769	PATIL KISHOR RAOSAHEB	Kishor Patil
33	5770	PATIL KSHITIJA ASHOK	K. Shitija
34	5771	PATIL NIKITA LAXMAN	Patil / D
35	5772	PATIL PANKAJ PRAKASH	Pankaj Prakash
36	5773	PATIL PRATIKSHA POPAT	Pratiksha Popat
37	5774	PATIL SACHIN BHAUSO	Sachin B.
38	5775	PATIL SADHANA NANASAHEB	S. Patil
39	5776	PATIL SHUBHAM VINAYAK	S. V. Patil
40	5777	PATIL SNEHA MADHUKAR	S. Patil
41	5778	PATIL SNEHAL SANJAY	S. S. Patil
42	5779	PATIL SUJAY SURESH	Sujay
43	5780	PATIL SWAPNALI ADHIK	Patil S.
44	5781	PATIL TEJAS GIRISH	T. Girish
45	5782	PATIL VAISHNAVI BHANUDAS	V. B. Patil
46	5783	PAWAR NIKHIL NANDKUMAR	N. Pawar
47	5784	PAWAR PRATHAMESH CHANDRAKANT	P. Pawar
48	5785	POTDAR ABHISHEK POPAT	Abhishek
49	5786	SALUNKHE PRANITA VISHNU	P. V. Salunkhe
50	5787	SALUNKHE ROHIT RAMESH	R. Salunkhe
51	5788	SAWANT SHIVANI RAMESH	S. R. Sawant
52	5789	SHELAKHE ANJALI ADHIKRAO	A. D. Shelakhe
53	5790	SHENDAGE AJIT RAJARAM	A. R. Shendage
54	5791	SHENDAGE PRATIKSHA SANJAY	
55	5792	SHENDAGE SMITA SURESH	S.
56	5793	SHINDE AKASH ANANDA	A. Shinde
57	5794	SHINDE DIPTI MANIK	D. M. Shinde
58	5795	SHINDE KASTURI NARAYAN	
59	5796	SHINDE ROHIT CHANDRAKANT	R. Shinde
60	5797	SHINDE SAYALI SANJAY	S. Shinde
61	5798	SHINDE SHUBHADA VASANT	S. V. Shinde
62	5799	SHINDE SHUBHAM DHANAJI	Shinde
63	5800	THORAT APURVA BALASO	A. Thorat
64	5801	THORWAT ANIKET SANJAY	A. Thorwat
65	5802	UMRANI POOJA PRADHAN	P. Umrani



66	5803	WAGH KULDEEP SHIDU	<u>Kuldeep</u>
67	5804	YADAV VARADRAJ ASHOK	
68	5805	YAMGAR SHWETA MAHADEV	<u>Y.M. Shweta</u>
69	5806	YEDAGE SAMBHAJI DASHRATH	
70	5807	ZAMBRE SHRADDHA SAYAJI	<u>Sambra</u>
71	5904	MOHITE PRATIK BHARAT	
72	5905	PATIL TEJASHRI SURESH	<u>Patil</u>
73	5906	JADHAV SUDIKA DINESH	<u>Jadhav</u>
74	5909	KAVATHEKAR ADITI SUDHAKAR	
75	5001	BABAR SARIKA GANPATI	<u>Babar</u>
76	5002	BHOSALE DNYANESHWARI PARAMANAND	<u>P.P. Bhosale</u>
77	5003	BHOSALE PALLAVI DILIP	<u>P.B.</u>
78	5004	CHAVAN PRATHMESH POPAT	<u>Chavhanpp</u>
79	5005	CHAVAN YASHWANT SANJAY	
80	5006	CHOUGULE NIKITA NAMDEV	<u>Chougule</u>
81	5007	DAGADE TEJASHRI ADHIKARAO	<u>Dagade</u>
82	5008	DEVKULE NIKITA NISHIKANT	
83	5009	EDAKE POOJA TUKARAM	<u>Edakepooja</u>
84	5010	GADVIR MANALI DIPAK	.
85	5011	GAIKWAD NIKHIL SHANKAR	<u>G.N.S.</u>
86	5012	GHORAPADE SAKSHI BALASO	<u>GG</u>
87	5013	GOSAVI DEEPAK MANIK	<u>Gosavi</u>
88	5014	GURAV JYOTI UTTAM	<u>Gurav</u>
89	5015	JADHAV RATNADIP SANJAY	<u>Jadhav</u>
90	5016	JADHAV SNEHAL SADANAND	<u>SJADHAV</u>
91	5017	JADHAV SUSHAMA SAHEBRAV	<u>Kamble</u>
92	5018	KAMBLE HARSH DILIP	<u>Khale</u>
93	5019	KHARMATE JYOTI DIPAK	<u>Kharmate</u>
94	5020	KOLI PRATHAMESH SANJAY	<u>RSKoli</u>
95	5021	LANDAGE ABHIJEET ANNASO	<u>Landage</u>
95	5022	LOKHANDE TRUPTI RAJENDRA	<u>T.R. Lokhande</u>
96	5023	MAINKAR DHANASHREE DATTATRAY	
97	5024	MALI ASHWINI SHIVAJI	<u>Mali</u>
98	5025	MANE NIKITA SHARAD	<u>Mane</u>
99	5026	MANE SANGRAM BHIMRAO	<u>S.B. Mane</u>
100	5027	MANE SHUBHAM NETAJI	<u>Mane</u>
101	5028	MORE ARPITA VISHWAS	<u>More</u>
102	5029	PATIL NIKITA SANJAY	<u>Patil</u>



103	5030	PATIL PANKAJ ARUN	<u>Pankaj</u>
104	5031	PATIL PRACHI AVADHUT	
105	5032	PATIL PRADNYA ANANDRAO	<u>P.P. Anandrao</u>
106	5033	PATIL PRAJAKTA MAHADEV	<u>P.P.R.</u>
107	5034	PATIL PRANALI SANJAY	
108	5035	PATIL ROHAN BALASAHEB	<u>P.R.R.</u>
109	5038	RANKHAMBE HARSHVARDHAN SHRIRANG	<u>Rankhambha</u>
110	5040	SAYYAD TASNIM RIYAJ	
111	5041	SHINDE HARSHADA DHANAJI	<u>S.H.D.</u>
112	5042	SHINDE PRATIKSHA RAJENDRA	
113	5043	SHINDE RUTUJA DILIP	<u>RSD</u>
114	5044	SURYAWANSHI HAREKRUSHNA DNYANDEV	<u>Shank</u>
115	5045	SURYAWANSHI SANDHYA BHARAT	
116	5046	TAKALE MAYURI SUNIL	<u>Mayuri</u>
117	5047	VIBHUTE AKANKSHA SANTOSH	
118	5048	WAGH AKANKSHA DHONDIRAM	<u>Wagh</u>
119	5191	CHAVAN VISHWAJEET KRUSHNARAO	
120	5192	DHISALE ANIKET SANJAY	<u>Aniket</u>
121	5193	EDAKE RUTUJA JAGANNATH	<u>Edake</u>
122	5195	JADHAV ANJALI MACHINDRA	
123	5196	JADHAV APARNA RAMDAS	<u>Aparna</u>
124	5197	JADHAV HARSHADA MAHADEV	<u>Harshada</u>
125	5199	JADHAV SOMNATH SUBHASH	<u>Somnath</u>
126	5200	JAMADADE VAISHNAVI HARISHCHANDRA	<u>Jamdad</u>
127	5201	KADAM ABHIJEET MANIK	<u>Kadam</u>

25/12/2021

**HEAD**  
DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAO DADA WATI  
MAHAYODIYALAYA, TARGAON, DIST. SANGLI













102	5029	PATIL NIKITA SANJAY	P	P	P	P	P	P	P	P	P	P	P
103	5030	PATIL PANKAJ ARUN	P	P	P	P	P	P	P	P	P	P	P
104	5031	PATIL PRACHI AVADHUT	P	P	P	P	P	P	P	P	P	P	P
105	5032	PATIL PRADNYA ANANDRAO	P	P	P	P	P	P	A	P	P	P	P
106	5033	PATIL PRAJAKTA MAHADEV	P	P	P	P	P	P	P	P	P	P	P
107	5034	PATIL PRANALI SANJAY	P	P	P	P	P	P	P	P	A	P	P
108	5035	PATIL ROHAN BALASAHEB	P	P	P	P	P	P	P	P	P	P	P
109	5038	RANKHAMBE HARSHVARDHAN SHRIRANG	P	P	P	P	P	P	P	P	P	P	P
110	5040	SAYYAD TASNIM RIYAJ	P	P	P	P	P	P	P	P	P	P	P
111	5041	SHINDE HARSHADA DHANAJI	P	P	P	P	P	P	P	P	P	P	P
112	5042	SHINDE PRATIKSHA RAJENDRA	P	P	P	P	P	P	P	P	P	P	P
113	5043	SHINDE RUTUJA DILIP	P	P	P	P	P	P	P	P	P	P	P
114	5044	SURYAWANSHI HAREKRUSHNA DNYANDEV	P	P	P	P	P	P	P	P	P	P	P
115	5045	SURYAWANSHI SANDHYA BHARAT	P	P	P	P	P	A	P	P	P	P	P
116	5046	TAKALE MAYURI SUNIL	P	P	P	P	A	P	P	P	P	P	P
117	5047	VIBHUTE AKANKSHA SANTOSH	P	P	P	P	P	P	P	P	P	P	P
118	5048	WAGH AKANKSHA DHONDIRAM	P	A	P	P	P	P	P	P	P	P	P
119	5191	CHAVAN VISHWAJEET KRUSHNARAO	P	P	P	P	P	P	P	P	P	P	P
120	5192	DHISALE ANIKET SANJAY	P	P	P	P	P	P	A	P	P	P	P
121	5193	EDAKE RUTUJA JAGANNATH	P	P	P	P	P	P	P	P	P	P	P
122	5195	JADHAV ANJALI MACHINDRA	P	P	P	P	P	A	P	P	A	P	P
123	5196	JADHAV APARNA RAMDAS	P	P	P	P	P	P	P	P	P	P	P
124	5197	JADHAV HARSHADA MAHADEV	P	P	P	P	P	P	P	P	P	P	P
125	5199	JADHAV SOMNATH SUBHASH	P	P	P	P	P	P	P	A	P	P	P
126	5200	JAMADADE VAISHNAVI HARISHCHANDRA	P	P	P	P	P	P	P	P	P	P	P
127	5201	KADAM ABHIJEET MANIK	P	P	P	P	P	P	P	P	P	P	P

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 (4) AK  
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102	5029	PATIL NIKITA SANJAY	P	P	A	P	P	P	P	P	P	P
103	5030	PATIL PANKAJ ARUN	P	A	P	P	P	P	P	P	P	P
104	5031	PATIL PRACHI AVADHUT	P	P	P	P	A	P	P	P	P	P
105	5032	PATIL PRADNYA ANANDRAO	P	P	A	P	P	P	P	P	P	P
106	5033	PATIL PRAJAKTA MAHADEV	P	P	P	P	P	A	P	P	P	P
107	5034	PATIL PRANALI SANJAY	P	P	P	A	P	P	P	P	P	P
108	5035	PATIL ROHAN BALASAHEB	P	P	P	P	P	P	P	A	P	P
109	5038	RANKHAMBHE HARSHVARDHAN SHRIRANG	P	P	P	A	P	P	P	P	P	P
110	5040	SAYYAD TASNIM RIYAJ	P	P	P	P	P	P	P	P	A	P
111	5041	SHINDE HARSHADA DHANAJI	P	P	A	P	P	P	P	P	P	P
112	5042	SHINDE PRATIKSHA RAJENDRA	P	P	P	P	P	P	P	P	P	A
113	5043	SHINDE RUTUJA DILIP	P	P	P	P	P	A	P	P	P	P
114	5044	SURYAWANSHI HAREKRUSHNA DNYANDEV	P	P	P	P	P	P	P	A	P	P
115	5045	SURYAWANSHI SANDHYA BHARAT	P	P	A	P	P	P	P	P	P	P
116	5046	TAKALE MAYURI SUNIL	P	P	P	P	P	A	P	P	P	P
117	5047	VIBHUTE AKANKSHA SANTOSH	P	P	P	P	A	P	P	P	P	P
118	5048	WAGH AKANKSHA DHONDIRAM	P	P	P	P	P	P	P	A	P	P
119	5191	CHAVAN VISHWAJEET KRUSHNARAO	P	P	P	A	P	P	P	P	P	P
120	5192	DHISALE ANIKET SANJAY	P	P	P	P	P	A	P	P	P	P
121	5193	EDAKE RUTUJA JAGANNATH	P	P	P	P	P	P	P	P	P	P
122	5195	JADHAV ANJALI MACHINDRA	P	P	A	P	P	P	P	P	P	P
123	5196	JADHAV APARNA RAMDAS	P	P	P	P	P	A	P	P	P	P
124	5197	JADHAV HARSHADA MAHADEV	P	A	P	P	P	P	P	P	P	P
125	5199	JADHAV SOMNATH SUBHASH	P	P	P	P	P	P	P	P	P	A
126	5200	JAMADADE VAISHNAVI HARISHCHANDRA	P	P	P	P	P	P	P	P	A	P
127	5201	KADAM ABHJEET MANIK	P	P	P	P	P	P	P	P	P	P

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102	5029	PATIL NIKITA SANJAY	P	P	P	P	P	P	P	P	P	P	P
103	5030	PATIL PANKAJ ARUN	P	A	P	P	P	P	P	P	P	P	P
104	5031	PATIL PRACHI AVADHUT	P	P	P	P	P	P	P	P	P	P	P
105	5032	PATIL PRADNYA ANANDRAO	P	P	P	P	P	P	P	P	P	P	P
106	5033	PATIL PRAJAKTA MAHADEV	P	P	P	P	P	P	P	P	P	P	P
107	5034	PATIL PRANALI SANJAY	P	P	P	P	P	P	P	P	P	P	P
108	5035	PATIL ROHAN BALASAHEB	P	P	P	P	P	P	P	P	P	P	P
109	5038	RANKHAMBE HARSHVARDHAN SHIRIRANG	P	P	P	P	P	P	P	P	P	P	P
110	5040	SAYYAD TASNIM RIYAJ	A	P	P	P	A	P	P	P	P	P	P
111	5041	SHINDE HARSHADA DHANAJI	P	P	P	P	P	P	P	P	P	P	P
112	5042	SHINDE PRATIKSHA RAJENDRA	P	P	A	P	P	P	P	P	P	P	P
113	5043	SHINDE RUTUJA DILIP	P	P	P	P	P	P	P	P	P	P	P
114	5044	SURYAWANSHI HAREKRUSHNA DNYANDEV	P	P	P	A	P	P	P	P	P	P	P
113	5045	SURYAWANSHI SANDHYA BHARAT	P	P	P	P	P	P	P	P	P	P	P
116	5046	TAKALE MAYURI SUNIL	P	P	P	P	P	P	P	P	P	P	P
117	5047	VIBHUTE AKANKSHA SANTOSH	P	P	P	P	P	P	P	P	P	P	P
118	5048	WAGH AKANKSHA DHONDIRAM	P	P	P	P	P	P	P	P	P	P	P
119	5191	CHAVAN VISHWAJEET KRUSHNARAO	P	P	P	P	P	P	P	P	P	P	P
120	5192	DHISALE ANIKET SANJAY	P	P	P	P	P	P	P	P	P	P	P
121	5193	EDAKE RUTUJA JAGANNATH	P	P	P	P	P	P	P	P	P	P	P
122	5195	JADHAV ANJALI MACHINDRA	P	P	P	P	P	P	P	P	P	P	P
123	5196	JADHAV APARNA RAMDAS	P	P	P	P	P	P	P	P	P	P	P
124	5197	JADHAV HARSHADA MAHADEV	P	P	P	P	P	P	P	P	P	P	P
125	5199	JADHAV SOMNATH SUBHASH	P	P	P	P	P	P	P	P	P	P	P
126	5200	JAMADADE VAISHNAVI HARISHCHANDRA	P	P	P	P	P	P	P	P	P	P	P
127	5201	KADAM ABHJEET MANIK	P	P	P	P	P	P	P	P	P	P	P

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 Ambar

"Dissemination of Education through Knowledge, Science and Culture"

-Shikshanmaharshi Dr. Bapuji Salunkhe  
Shri Swami Vivekanand Shikshan Sanstha's, Kolhapur

Padmbhushan Dr. Vasanttraodada Patil Mahavidyala, Tasgaon,  
Certificate course on "SERICULTURE"

## Department of Zoology

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### Notice

22/03 /2021

All the B.Sc. III students of Zoology department are hereby informed that the exam on "Sericulture Certificate Course" will be held on 24/03/2021. The attendance should be compulsory.

Head of Department



Prof. (Dr.) S.A. Khabade)

**HEAD**  
DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAO DADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI

"Dissemination of Education through Knowledge, Science and Culture"  
-Shikshanmaharshi Dr. Bapuji Salunkhe  
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Padmbhushan Dr. Vasanttraodada Patil Mahavidyala, Tasgaon.

Certificate course on "SERICULTURE"

Department of Zoology

Date- 24/03/2021

Total mark-50

Note- Answer all the questions

Each question carries 2 marks

**Q.1) Multiple choice question**

**Marks 10.**

1. This species produces silk of the superior quality.  
a) Attacus atlas      b) Bombyx mori      c) Attacus ricini      d) Antheraea assamensis
2. Silk is produced by.....  
a) Cocoon      b) adult moth      c) larva      d) larva and adult moth
- 3) What is the life span of an adult ' Bombyx mori '  
a) 2days      b) 3-4 days      c) 6 days      d) 8days
- 4) Silk contains a protein known as.....  
a) casein      b) fibroin      c) sericin      d) both b and c
- 5) Which of the following varieties of silk is not produced in India.  
a) Muga silk      b) Tassar silk      c) Mulberry silk      d) American silk

**Q.2) Attempt any one of the following.**

**Marks-20**

1. Explain the silkworm life history with neat diagram?



2. Write various steps for processing fibres into wool?

**Q.3 ) Attempt any two of the following.**

**Marks-20**

1. Write the economics of egg production?
2. Write the systematic position of silkworm?
3. Write about hatching and brushing?
4. Types of silk wastes?

Mali Aishwarya Abaso  
B.Sc III  
Date - 24/3/2021

Q. 1. This species produces silk of the superior quality

→ ~~Bombyx mori~~

2. Silk is produced by

→ ~~larva.~~

3. What is the life span of an adult "Bombyx mori" → 3 to 4 day

4. Silk contains a protein known as —

→ ~~Fibroin~~

5. Which of the following varieties of silk is not produced in India.

→ ~~American silk.~~

Q. 2 Explain the silkworm's life history with neat diagram?

→ The life cycle of silk moth starts when a female silk moth lays eggs, the caterpillar or larvae are hatched from the eggs of the silk moth. The silkworms feed on mulberry leaves & give rise to pupa. After that it swings its head.



silk is a type of natural fibre or animal fibre. silkworm is responsible for spinning of silk & it is reared to obtain silk.

### History of silk :-

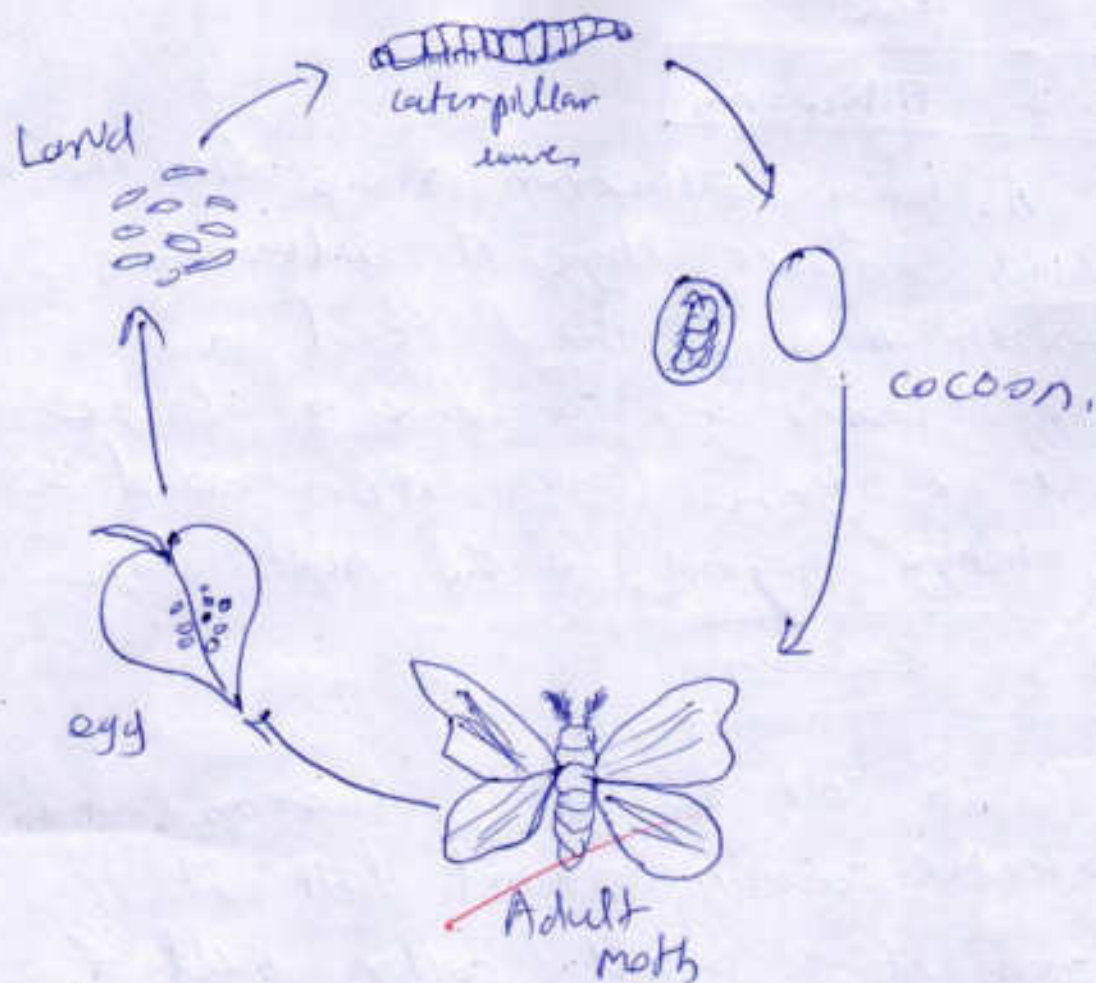
silk was discovered around 3500 Bc in china. for a long period of time, silk was shipped to other parts of the world through trade. Technological advancement & new developments have enabled manufacturers to produce different types of silk from diff. silkworms on the basis of luster & texture.

mulberry silk is the most common silk moth that is used for producing silk. Rearing of the silkworm is known as sericulture.

### The life cycle of silkworms

The life cycle of silk moth starts when a female silk moth lays eggs. The caterpillars or larvae are hatched from the eggs of the silk moth. The silkworms feed on mulberry leaves & give rise to pupa. In the pupa stage, a weaver is netted around by the silkworm to hold itself. After that the spinning its head spinning a fibre. Several caterpillars form a protective layer around pupa & this covering is known as the cocoon.





### Stage - 1 Egg

An egg is the first stage of the life cycle of the silkworm. The egg is laid by a female moth which is mostly the size of small dots. A female moth lays more than 300 eggs at a time. In the springtime the eggs hatch due to the warmth in the air. This

This procedure happens once in every year.

### Stage 2: Silkworms

A hairy silkworm arises after the eggs crack. In this stage of silkworms, the growth happens. They feed on mulberry leaves & consume a large amount of these leaves for around 30 days before going to the next stage.

### Stage 3 Cocoon

In this stage, silkworms spin a protective cocoon around itself. It is the size of a small cotton ball & is made of a single thread of silk.

### Stage 4: Pupa

The pupa stage is a motionless stage in this stage people kill the pupa by plunging the cocoon into boiling water & unwind the silk thread.



### Stage 5 moth

In this stage, the pupa changes into an adult moth. The female moth lays eggs after mating & thus the life cycle of silkworms begins again.

### Processing of silk

Extracting silk from the cocoon is known as the processing of silk. Silk is separated from the cocoon by exposing it to sunlight. After the reeling of silk is done, the process of unwinding silk from a cocoon takes place. Silk from a cocoon takes place. Silk thread is then bleached. The silk fibre is then spun into silk threads.

20/20



Q.3 write the economic of egg production.

The incremental trend in the share of Bimoline silk production in India is a welcome change to reduce dependency on chinese silk yarn imports besides development of farm based rural enterprise based on ~~subsidized~~ dry land farming practices in the country.

Technology Involved

Silk worm eggs are produced at registered silk worm seed production centre & young caterpillars are supplied to 80-100 farmers covering 120-150 acres of mulberry.

Optimum temp. maintained in 9 CRC is 27-28°C with relative humidity of 85-90% using air cooler or air conditioning.

Particulars	Annual cost	Particulars	Annual cost
Mulberry trade price	33,300	Cost of distribution	1,750
Appropriated cost for mulberry ground	7900	Miscellaneous	10,000
		Total cost of silk worms	20,797



## 2) Types of silk waste-2

→ silk waste includes all kinds of raw silk which may be unwindable, & therefore unsuited to the throwing process. before the introduction of machinery applicable to the spinning of silk waste, the refuse from cocoon reeling & also from silk winding, which is now used in producing spun silk winding which is now used in production spun silk fibroics was nearly all destroyed as being useless with the exceptions of that which could be hand-combed & spun by means of the distaff & spinning wheel a method which is still practised by some of the persons in India.

### Sources

The supply of waste silk is drawn from the following sources

- The silkworm, when commencing to spin emits a dull, dustless & uneven thread with which it suspends itself from the twigs & leaves of the tree upon which it has been feeding or the stream provided for it by attendants. In the worm rearing establishment this first thread is unreliable this last thread is unreliable, & moreover is often mixed with straw, leaver & twigs

- pierced cocoons that is those from which the moth of the silkworm has emerged and damaged cocoon

- During the process of reeling the from the cocoon the silk often breaks & both in finding a base & red the thread & in joining the ends hence is unavoidable waste



## Zoology Certificate Course In Zoology 2020-21

### Exam Attendance For Certificate course in "Sericulture"

Sr.No	Roll No.	Name of The Students	Signature
1	6101	BODAKE SAKSHI SHANKAR	Bodakes
2	6103	ERANDOLE SHUBHANGI MAHADEV	E.S.M.
3	6104	GHAGARE KOMAL BHAIRU	K.B. Ghagare
4	6105	JADHAV GOURI RAGHUNATH	Gauri J.
5	6106	JADHAV SUHAS SHIVAJI	S. S. Jadhav
6	6107	JAMADADE MAYURI VISHNU	Jamada
7	6108	KAMBLE PRACHI VIJAY	P.V. Kamble
8	6109	KAMBLE SHWETA VIKAS	S.V. Kamble
9	6110	MALI AISHWARYA ABASO	A. Amali
10	6111	MOHITE PRITI SHANKAR	P. Mohite
11	6112	PATIL PRASAD KAILAS	P. Patil
12	6113	PATIL PRATIKSHA RAVSAHEB	P.R. Patil
13	6114	PATIL PREETI RAJENDRA	P. P. Patil
14	6115	PATIL RUPALI PARASHARAM	R. Patil
15	6116	PATIL SHIVANI AVINASH	S. Patil
16	6117	PAWAR SURBHI RAJENDRA	S.R. Pawar
17	6118	TAUR SHRADDHA KAILAS	T. Taur
18	6119	THORAT DIPTI LAXMAN	D. Thorat
19	5756	MALI NIVEDITA GAJANAN	N. Amali
20	5757	MALI SAKSHI MILIND	M. Mali
21	5758	MANE PALLAVI APPASO	P.A. Mane
22	5759	MANE SAYALI SHAHAJI	S. Mane
23	5760	MANE SONALI SUDHAKAR	S.D. Mane
24	5761	MANE SWAPNALI PRAKASH	S. Mane
25	5762	MOHITE AISHWARYA VINOD	M. A. Mohite
26	5763	MOHITE PRANALI ADHIKRAO	P.A. Mohite
27	5764	MORE ADARSH POPAT	M. More
28	5765	PARALE ASAWARI ADINATH	P. Parale

29	5766	PATHAN SWALIYA JAMIRKHAN	P. S. Jamirkhan.
30	5767	PATIL AJAY SAMBHAJI	A.S. patil.
31	5768	PATIL AKSHADA SUNIL	Akshada.
32	5769	PATIL KISHOR RAOSAHEB	Kishor patil.
33	5770	PATIL KSHITJA ASHOK	Kshitja.
34	5771	PATIL NIKITA LAXMAN	patil.
35	5772	PATIL PANKAJ PRAKASH	Pankaj.
36	5773	PATIL PRATIKSHA POPAT	Pratiksha.
37	5774	PATIL SACHIN BHAUSO	sachin.
38	5775	PATIL SADHANA NANASAHEB	patil.
39	5776	PATIL SHUBHAM VINAYAK	S.V. Patil
40	5777	PATIL SNEHA MADHUKAR	patil.
41	5778	PATIL SNEHAL SANJAY	S.S. Patil
42	5779	PATIL SUJAY SURESH	patil.
43	5780	PATIL SWAPNALI ADHIK	patil.
44	5781	PATIL TEJAS GIRISH	T. G. Patil
45	5782	PATIL VAISHNAVI BHANUDAS	V. B. Patil
46	5783	PAWAR NIKHIL NANDKUMAR	paaw :
47	5784	PAWAR PRATHAMESH CHANDRAKANT	P. C. Pawar
48	5785	POTDAR ABHISHEK POPAT	Potdar
49	5786	SALUNKHE PRANITA VISHNU	salunkhe.
50	5787	SALUNKHE ROHIT RAMESH	R.P. Salunkhe.
51	5788	SAWANT SHIVANI RAMESH	S. R. Sawant
52	5789	SHELAKE ANJALI ADHIKRAO	A. D. Shelake
53	5790	SHENDAGE AJIT RAJARAM	A. R. Shendage.
54	5791	SHENDAGE PRATIKSHA SANJAY	. Shendage
55	5792	SHENDAGE SMITA SURESH	S.
56	5793	SHINDE AKASH ANANDA	A. A. Shinde
57	5794	SHINDE DIPTI MANIK	D. M. Shinde
58	5795	SHINDE KASTURI NARAYAN	Shinde ~
59	5796	SHINDE ROHIT CHANDRAKANT	R. Shinde.
60	5797	SHINDE SAYALI SANJAY	. Shinde.
61	5798	SHINDE SHUBHADA VASANT	S. S. Shinde.
62	5799	SHINDE SHUBHAM DHANAJI	shubham.
63	5800	THORAT APURVA BALASO	Thorat.
64	5801	THORWAT ANIKET SANJAY	Thorwat



65	5802	UMRANI POOJA PRADHAN	<del>Kharag</del> .
66	5803	WAGH KULDEEP SHIDU	Wagh .
67	5804	YADAV VARADRAJ ASHOK	Yadav .
68	5805	YAMGAR SHWETA MAHADEV	<del>Yamgar</del> .
69	5806	YEDAGE SAMBHAJI DASHRATH	Yedage .
70	5807	ZAMBRE SHRADDHA SAYAJI	<del>Sambre</del>
71	5904	MOHITE PRATIK BHARAT	Mohite .
72	5905	PATIL TEJASHRI SURESH	<del>Patil</del> .
73	5906	JADHAV SUDI KSHA DINESH	Jadhav .
74	5909	KAVATHEKAR ADITI SUDHAKAR	Kavathekar .
75	5001	BABAR SARIKA GANPATI	B.S.G.
76	5002	BHOSALE DNYANESHWARI PARAMANAND	Bhosale .
77	5003	BHOSALE PALLAVI DILIP	<del>PDB</del> .
78	5004	CHAVAN PRATHMESH POPAT	Chavan .
79	5005	CHAVAN YASHWANT SANJAY	Chavan .
80	5006	CHOUGULE NIKITA NAMDEV	Nikhil .
81	5007	DAGADE TEJASHRI ADHIKARAO	<del>Dagade</del>
82	5008	DEVKULE NIKITA NISHIKANT	Devkule .
83	5009	EDAKE POOJA TUKARAM	Edake .
84	5010	GADVIR MANALI DIPAK	Gadvir .
85	5011	GAIKWAD NIKHIL SHANKAR	Nikhil .
86	5012	GHORAPADE SAKSHI BALASO	Ghorapade .
87	5013	GOSAVI DEEPAK MANIK	D.M. Gosavi
88	5014	GURAV JYOTI UTTAM	Gurav .
89	5015	JADHAV RATNADIP SANJAY	R.S. Jadhav .
90	5016	JADHAV SNEHAL SADANAND	<del>Sadanand</del>
91	5017	JADHAV SUSHAMA SAHEBRAV	S.S. Jadhav .
92	5018	KAMBLE HARSH DILIP	<del>Kamble</del> .
93	5019	KHARMATE JYOTI DIPAK	Jyoti .
94	5020	KOLI PRATHAMESH SANJAY	Koli .
95	5021	LANDAGE ABHIJEET ANNASO	<del>Landage</del>
95	5022	LOKHANDE TRUPTI RAJENDRA	T.R. Lokhande
96	5023	MAINIKAR DHANASHREE DATTATRAY	<del>Mainikar</del>
97	5024	MALI ASHWINI SHIVAJI	<del>Mali</del>
98	5025	MANE NIKITA SHARAD	Nikhil .
99	5026	MANE SANGRAM BHIMRAO	<del>S.B. Mane</del>
100	5027	MANE SHUBHAM NETAJI	<del>Mane</del>
101	5028	MORE ARPITA VISHWAS	more .



102	5029	PATIL NIKITA SANJAY	<u>M. Patil</u>
103	5030	PATIL PANKAJ ARUN	<u>Patil</u>
104	5031	PATIL PRACHI AVADHUT	
105	5032	PATIL PRADNYA ANANDRAO	<u>P.P. Ananda</u>
106	5033	PATIL PRAJAKTA MAHADEV	<u>Patil</u>
107	5034	PATIL PRANALI SANJAY	
108	5035	PATIL ROHAN BALASAHEB	<u>Ranikhande</u>
109	5038	RANKHAMBE HARSHVARDHAN SHRIRANG	<u>Rank</u>
110	5040	SAYYAD TASNIM RIYAJ	
111	5041	SHINDE HARSHADA DHANAJI	<u>S.H.D</u>
112	5042	SHINDE PRATIKSHA RAJENDRA	<u>S.P.R</u>
113	5043	SHINDE RUTUJA DILIP	<u>RSD</u>
114	5044	SURYAWANSHI HAREKRUSHNA DNYANDEV	<u>Deble</u>
115	5045	SURYAWANSHI SANDHYA BHARAT	<u>S.S.B</u>
116	5046	TAKALE MAYURI SUNIL	<u>Takale</u>
117	5047	VIBHUTE AKANKSHA SANTOSH	<u>Vibhute</u>
118	5048	WAGH AKANKSHA DHONDIRAM	
119	5191	CHAVAN VISHWAJEET KRUSHNARAO	<u>Chavane</u>
120	5192	DHISALE ANIKET SANJAY	
121	5193	EDAKE RUTUJA JAGANNATH	<u>Edake</u>
122	5195	JADHAV ANJALI MACHINDRA	<u>Jadhav</u>
123	5196	JADHAV APARNA RAMDAS	<u>J.Ramdas</u>
124	5197	JADHAV HARSHADA MAHADEV	
125	5199	JADHAV SOMNATH SUBHASH	<u>SS Jadhav</u>
126	5200	JAMADADE VAISHNAVI HARISHCHANDRA	<u>Jamdade</u>
127	5201	KADAM ABHIJEET MANIK	<u>Kadam</u>

  
**HEAD**  
 DEPARTMENT OF ZOOLOGY,  
 PADMABHUSHAN DR. VASANTRAO DADA JATI  
 MAHAVIDYALAYA, TARGADN. DIST. SANGLI

"Dissemination of Education through Knowledge, Science and Culture" Shikshanmaharshi Dr. Bapuji Salunkhe  
Shri Swami VivekanandShikshanSanstha's, Kolhapur

Padmbhushan Dr. Vasantraodada Patil Mahavidyala, Tasgaon, Dist- Sangli.

**DEPARTMENT OF ZOOLOGY**

**Zoology Certificate Course 2020-21**

**MARK LIST FOR CERTIFICATE COURSE IN "SERICULTURE"**


Sr.No	Roll No.	Name of The Students	Marks
1	6101	BODAKE SAKSHI SHANKAR	48
2	6103	ERANDOLE SHUBHANGI MAHADEV	48
3	6104	GHAGARE KOMAL BHAIRU	49
4	6105	JADHAV GOURI RAGHUNATH	48
5	6106	JADHAV SUHAS SHIVAJI	47
6	6107	JAMADADE MAYURI VISHNU	45
7	6108	KAMBLE PRACHI VIJAY	48
8	6109	KAMBLE SHWETA VIKAS	48
9	6110	MALI AISHWARYA ABASO	49
10	6111	MOHITE PRITI SHANKAR	45
11	6112	PATIL PRASAD KAILAS	48
12	6113	PATIL PRATIKSHA RAVSAHEB	47
13	6114	PATIL PREETI RAJENDRA	47
14	6115	PATIL RUPALI PARASHARAM	45
15	6116	PATIL SHIVANI AVINASH	46
16	6117	PAWAR SURBHI RAJENDRA	47
17	6118	TAUR SHRADDHA KAILAS	48
18	6119	THORAT DIPTI LAXMAN	48
19	5756	MALI NIVEDITA GAJANAN	48
20	5757	MALI SAKSHI MILIND	48
21	5758	MANE PALLAVI APPASO	47
22	5759	MANE SAYALI SHAHAJI	47
23	5760	MANE SONALI SUDHAKAR	47
24	5761	MANE SWAPNALI PRAKASH	45
25	5762	MOHITE AISHWARYA VINOD	45



26	5763	MOHITE PRANALI ADHIKRAO	48
27	5764	MORE ADARSH POPAT	47
28	5765	PARALE ASAWARI ADINATH	47
29	5766	PATHAN SWALIYA JAMIRKHAN	47
30	5767	PATIL AJAY SAMBHAJI	47
31	5768	PATIL AKSHADA SUNIL	48
32	5769	PATIL KISHOR RAOSAHEB	48
33	5770	PATIL KSHITJA ASHOK	49
34	5771	PATIL NIKITA LAXMAN	45
35	5772	PATIL PANKAJ PRAKASH	45
36	5773	PATIL PRATIKSHA POPAT	47
37	5774	PATIL SACHIN BHAUSO	48
38	5775	PATIL SADHANA NANASAHEB	48
39	5776	PATIL SHUBHAM VINAYAK	48
40	5777	PATIL SNEHA MADHUKAR	47
41	5778	PATIL SNEHAL SANJAY	48
42	5779	PATIL SUJAY SURESH	48
43	5780	PATIL SWAPNALI ADHIK	47
44	5781	PATIL TEJAS GIRISH	47
45	5782	PATIL VAISHNAVI BHANUDAS	48
46	5783	PAWAR NIKHIL NANDKUMAR	48
47	5784	PAWAR PRATHAMESH CHANDRAKANT	48
48	5785	POTDAR ABHISHEK POPAT	48
49	5786	SALUNKHE PRANITA VISHNU	48
50	5787	SALUNKHE ROHIT RAMESH	48
51	5788	SAWANT SHIVANI RAMESH	47
52	5789	SHELAKHE ANJALI ADHIKRAO	47
53	5790	SHENDAGE AJIT RAJARAM	48
54	5791	SHENDAGE PRATIKSHA SANJAY	48
55	5792	SHENDAGE SMITA SURESH	48
56	5793	SHINDE AKASH ANANDA	47
57	5794	SHINDE DIPTI MANIK	45
58	5795	SHINDE KASTURI NARAYAN	45
59	5796	SHINDE ROHIT CHANDRAKANT	48
60	5797	SHINDE SAYALI SANJAY	47
61	5798	SHINDE SHUBHADA VASANT	45



62	5799	SHINDE SHUBHAM DHANAJI	45
63	5800	THORAT APURVA BALASO	45
64	5801	THORWAT ANIKET SANJAY	44
65	5802	UMRANI POOJA PRADHAN	43
66	5803	WAGH KULDEEP SHIDU	45
67	5804	YADAV VARADRAJ ASHOK	45
68	5805	YAMGAR SHWETA MAHADEV	45
69	5806	YEDAGE SAMBHAJI DASHRATH	47
70	5807	ZAMBRE SHRADDHA SAYAJI	48
71	5904	MOHITE PRATIK BHARAT	48
72	5905	PATIL TEJASHRI SURESH	48
73	5906	JADHAV SUDIKSHA DINESH	45
74	5909	KAVATHEKAR ADITI SUDHAKAR	45
75	5001	BABAR SARIKA GANPATI	45
76	5002	BHOSALE DNYANESHWARI PARAMANAND	45
77	5003	BHOSALE PALLAVI DILIP	47
78	5004	CHAVAN PRATHMESH POPAT	47
79	5005	CHAVAN YASHWANT SANJAY	47
80	5006	CHOUGULE NIKITA NAMDEV	47
81	5007	DAGADE TEJASHRI ADHIKARAO	48
82	5008	DEVKULE NIKITA NISHIKANT	48
83	5009	EDAKE POOJA TUKARAM	48
84	5010	GADVIR MANALI DIPAK	45
85	5011	GAIKWAD NIKHIL SHANKAR	47
86	5012	GHORAPADE SAKSHI BALASO	46
87	5013	GOSAVI DEEPAK MANIK	46
88	5014	GURAV JYOTI UTTAM	45
89	5015	JADHAV RATNADIP SANJAY	46
90	5016	JADHAV SNEHAL SADANAND	48
91	5017	JADHAV SUSHAMA SAHEBRAV	44
92	5018	KAMBLE HARSH DILIP	45
93	5019	KHARMATE JYOTI DIPAK	48
94	5020	KOLI PRATHAMESH SANJAY	43
95	5021	LANDAGE ABHIJEET ANNASO	45
95	5022	LOKHANDE TRUPTI RAJENDRA	43
96	5023	MAINKAR DHANASHREE DATTATRAY	43
97	5024	MALI ASHWINI SHIVAJI	45
98	5025	MANE NIKITA SHARAD	45

  
**HEAD**  
 DEPARTMENT OF ZOOLOGY,  
 PADMABHUSHAN DR. VASANTRAO DADA PATIL  
 MAHARAJA WALAYA, TASSADOL DIST. GANGLI

99	5026	MANE SANGRAM BHIMRAO	
100	5027	MANE SHUBHAM NETAJI	
101	5028	MORE ARPITA VISHWAS	
102	5029	PATIL NIKITA SANJAY	
103	5030	PATIL PANKAJ ARUN	
104	5031	PATIL PRACHI AVADHUT	
105	5032	PATIL PRADNYA ANANDRAO	
106	5033	PATIL PRAJAKTA MAHADEV	
107	5034	PATIL PRANALI SANJAY	
108	5035	PATIL ROHAN BALASAHEB	
109	5038	RANKHAMBE HARSHVARDHAN SHRIRANG	
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115	5045	SURYAWANSHI SANDHYA BHARAT	
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122	5195	JADHAV ANJALI MACHINDRA	
123	5196	JADHAV APARNA RAMDAS	
124	5197	JADHAV HARSHADA MAHADEV	
125	5199	JADHAV SOMNATH SUBHASH	
126	5200	JAMADADE VAISHNAVI HARISHCHANDRA	
127	5201	KADAM ABHIJEET MANIK	

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,  
TASGAON DIST. SANGLI  
(MAHARASHTRA)  
PIN. 416312**

**Title of the course**

**CERTIFICATE COURSE  
IN  
"VERMICOMPOSTING BIOTECHNOLOGY"**

**Organizer**

**DEPARTMENT OF ZOOLOGY**

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA, TASGAON  
DIST. SANGLI**



<b>Type of course unit</b>	:	Compulsory
<b>Duration of the course</b>	:	Six weeks 1 <sup>st</sup> January 2019 to 15 February 2019
<b>Fees of the course</b>	:	300/-
<b>Delivery model</b>	:	Face to face
<b>Language of Instruction</b>	:	English/Marathi
<b>Course Co-ordinaor</b>	:	<b>Dr. Khabade S. A.</b>
<b>Course Co-coordinator</b>	:	<b>Dr. P. B. Teli.</b>
<b>Intake capacity</b>	:	25
<b>Eligibility</b>	:	10+2, B. Sc., B. Com., B.A., M. Sc., M. Com., M. A., Computer Science,
<b>Hours of work</b>	:	33 Hrs
<b>Total hours</b>	:	Theory- 24 , Practical-09

**CERTIFICATE COURSE  
IN  
"VERMICOMPOSTING BIOTECHNOLOGY"**

**CERTIFICATE COURSE  
IN  
"VERMICOMPOSTING BIOTECHNOLOGY"**

**INTRODUCTION:**

The decomposition or stabilization of organic matter by the action of microorganism has been taking place in nature since life first appeared on earth. "Composting" means attempt to control and directly utilize the natural process for sanitary disposal and reclamation of organic waste material. The final product of composting is called "compost".

Vermicomposting truly is nature's great disappearing act. Vermiculture is the part of environmental biotechnology. Environmental biotechnology aims for bioconversion of organic wastes into resources which leads to protect the environment from getting polluted. Environmental biotechnology involves harnessing diverse desired species and strains of bacteria to convert organic wastes to value added products.

All animals are bioreactors of some kind, because they regulate the temperature, moisture, pH level of their own bodies to ensure their own survival. The main task is now to find an animal whose bioreactor functions correspond to the conditions that suit aerobic bacteria and such suitable animal which is easily available is the Earthworm. The Earthworm are known to inhabit the earth's soil since the Precambrian period about 600 million years ago. Charles Darwin (1881) first studied the role of Earthworms in breaking down of dead plant and animal residues because of their great importance in soil improvement. As early as 384 -322 B.C. the famous Greek philosopher Aristotle described Earthworms as "the intestine of earth". The gut of an Earthworm is a perfect natural bioreactor, which provides an ideal home for aerobic bacteria. Garbage's in which earthworm lives is not a Garbage for him but it is a habitat which he needs for getting nutritious food. Earthworms feed on bacteria present in organic matter (soil).

In 1985 Maharashtra Agricultural Bioteks, an organization that has initiated both commercial and educational ventures was formed and established a small plant to manufacture Vermicompost from agricultural waste. The organization currently produces 5000 tones of Vermicompost annually. In 1991 - 1992 Maharashtra Bioteks and the India department of Science and Technology promoted the adoption of Vermicompost technology in 13 States in India. The group has also established a Vermicompost unit with Chitrakoot Gramodaya University Madhya Pradesh which produces five tons of Vermicompost per month. Educational Institutes in Maharashtra and other states have started conducting Certificate/Diploma/Regular courses on vermiculture, vermiculture biotechnology and vermiculture and vermicompost technology. The duration of courses from 10 days to 6 months. The Department of zoology of P. D .V. P. Mahavidyalaya Tasgaon, Dist. Sangli, running six weeks (One and half months) "Vermicomposting Biotechnology" course.

**Aims and Objectives-**

1. To get the knowledge of composting.
2. Students will create their own business.
3. Students can generate employments in organic fertilizer companies.
4. The students having own farms will turn towards organic farming.
5. Vermicompost technology will help to maintain the environment pollution free.
6. The course will help to get the knowledge of diversity of local earthworm species.
7. To convert unwanted organic matter particularly plant leaves , garbage and paper into fertile soil.

#### **Details of the Course :**

<b>Name of the course</b>	<b>: Certificate course in Vermicomposting Biotechnology</b>
<b>Level</b>	<b>: Certificate</b>
<b>Stream</b>	<b>: Science and any stream</b>
<b>Subject</b>	<b>: Vermiculture/Vermicompost</b>
<b>Eligibility criteria</b>	<b>: 10+2, B. Sc., B.Com., B.A., M.Sc.,M.Com., M.A., Computer science</b>
<b>Duration of the course</b>	<b>: 1.5 Months i.e 6 weeks i.e 45 days</b>
<b>Language</b>	<b>: English/Marathi</b>
<b>Intake capacity</b>	<b>: 25 seats</b>
<b>Fees of the course</b>	<b>: 300/-</b>
<b>Selection /admission criteria: First come First serve</b>	
<b>Attendance</b>	<b>: 90%</b>
<b>Lecture/ practical time</b>	<b>: 5.00 to 6.00 pm</b>



**Academic calendar for the course:** Five days in a week  
(4 days theory periods and 1 day practical)

**Available infrastructure:** Well equipped laboratory, small and large  
Scale Vermiculture units.

**Teaching staff** : Well qualified, experienced Guest Lecturers  
and Eminent professors will be invited

**Non teaching staff** : 01 Laboratory Assistant and 02 Laboratory  
Attendants

### **Examination structure & schedule:**

At the end of course the examination will be conducted. Its notice & time table will be displayed for communication to the students at least before 10 days of the date of examination.

1. Course VBT-01 Theory paper (objective/short answer type/Long answer type) = 50marks, Two hours duration.
2. Course VBT-02 Practical paper =50 marks, two hours duration

Marking scheme & Award of grades: Average of the marks obtained in each paper will be calculated as:  $50+50=100/2 = 50$ ;

- i) 8-10 marks = 1point, C' grade – pass;
- ii) 10-20 marks = 2 points, B' grade;
- iii) 20-30 marks = 3points, B+ grade;
- iv) 30-40 marks =4points, A' grade;
- v) 40-50 marks =5points, A+ grade

Award of Certificate carrying grades: after successful completion of course colorful certificate indicating grade will be awarded to the candidate.

**Reservation:** NA

### **Course Content: Syllabus/Program**

## SCHEME

Vermicomposting Biotechnology as one of the Certificate Course at Undergraduate, graduate and Post graduate students level

<b>Credit to be earned</b>	<b>04 credit</b>
Theory paper	03 credit
Practical course /paper	01 credit

### Proposed distribution of the course structure

Sr.No.	Code	Title of the paper Vermicomposting Biotechnology	Credit pattern in L:T:P	Credit value
1	VBTT-01	VBT Theory Related	3:0:0	03
2	VBTP-02	VBT Practical Related	0:0:1	01

Open selective course for any students enrolled in the College from different Disciplines

**Title of the Course:** Certificate Course in Vermicomposting Biotechnology

## Theory Course VBT-01

3 -Credits

### Unit : I General Vermiculture / Vermicompost

6-hrs

- 1) Introduction to Vermiculture, definition, History, Habitat diversity, ecology.
- 2) Varieties of Earthworms, Types of Earthworms (Endemic and Exotic species) suitable for vermicomposting, Economic importance of earthworms, Harmful activities of worms.
- 3) Key to identify Species of Earthworms.
- 4) Types of earthworms employed in vermicomposting.

### Unit: II Earthworm biology and Rearing

6 -hrs

- 5) Biology of *Pheritima posthuma* (Indigenous or Indian earthworm). Systematic position, Habit and habitats, External features, Locomotion, Digestive system and Physiology of digestion, Reproductive system- Male and Female reproductive system, Copulation, Fertilization and Cocoon formation.
- 6) Biology of *Eudrilus eugeniae* (Exotic species) -Classification, Life cycle, Growth.
- 7) Biology of *Eisenia foetida* (Exotic species)- Classification, Odor, Related species. Reproduction, Lifecycle.

### Unit :III Vermicompost technology (Methods and products)

6-hrs

- 8) Small scale vermiculture technique- Recycling of kitchen waste-
  - a) Preparation of vermiculture bed.
  - b) Treatment of kitchen waste using vermiculture beds.
- 9) Large scale commercial vermiculture farming- Basic requirements, Preparation of vermibeds, Collection of compost and separation of Earthworms, Vermiwash- Method of preparation, Chemical composition of wormicast.

### Unit IV- Applied vermiculture

6-hrs



- 10) Effect of vermiwash on crop yield and quality of crops .
- 11) Enemies of earthworms.
- 12) Toxins released by the worms (Harmful effects).
- 13) Applications of vermicomposting.
- 14) Complimentary Activities of auto evaluation.

### **Practical course VBT -02**

**1-Credit**

#### **Practical Syllabus:**

**09 hrs**

- 1) External morphology of earthworm *Pheretima posthuma*.
- 2) Different types of Earthworm species - Demonstration with the help of key.
- 3) Digestive system.
- 4) Reproductive system.
- 5) Demonstration of Life cycle and development.
- 6) Field trip- for collection of Endemic varieties.
- 7) Study of Habit and habitat, Systematic position and identification.
- 8) Study of vermiculture, vermiwash and vermicompost equipments and devices.
- 9) Preparation of vermibeds, maintainence of vermicompost and climatic conditions.
- 10) Harvesting, Packaging, Transport and Storage of vermicompost and Separation of life stages.
- 11) Study of diseases and enemies of earthworms.
- 12) Study of effect of vermicompost and vermiwash on any two short duration crops.

Total periods in hrs = Theory 06 hrs per unit x 4 units = 24hrs x 60 minutes = 1440minutes + 09 hrs for practical (i.e. 09x60 minutes = 540 minutes); 1440+540 = 1980 minutes. 33hrs + 5hrs in a week = 6.6 weeks duration i.e. 1.5 months (45 days)

Initially about 60days are required to set the culture or to form the vermicompost, later on in about 45 days, second culture will be formed. Students will observe 2 succeeding beds (rearing). Total days 60+45 = 105 days, ( not recognized by UGC, for UGC 20 credits of which 10 credits for project/ field /work/training, it should be of 300 hrs, duration 6 months)

#### **Advantage of the Course & Future Prospects:**

- I. Students can construct their own compost farm and can get monthly income of Rs.8000-9000.
- II. Students/ farmers by using vermicompost in their field can increase the crop yield.
- III. Students of urban areas can produce vermicompost in small scale for garden/household plants.
- IV. Students can get the jobs in private vermicomposting units , fertilizer companies and educational institutes as vermicompost/vermiculture technician.
- V. The candidate can generate income by supplying verms, vermiwash, and vermicompost.
- VI. By developing and propagating vermicompost technology he/she will directly or indirectly help to prevent environmental pollution.
- VII. It will lead towards organic farming & healthy food.
- VIII. 3R rules are necessary in order to sustain our health and environment.  
So let's apply 3R rule -**Reduce, Reuse and Recycle.**

### Reference books:

1. Bhatt J.V. & S.R. Khambata (1959) "Role of Earthworms in Agriculture" Indian Council of Agricultural Research, New Delhi
2. Dash, M.C., B.K.Senapati, P.C. Mishra (1980) " Verms and Vermicomposting" Proceedings of the National Seminar on Organic Waste Utilization and Vermicomposting Dec. 5-8, 1984, (Part B), School of Life Sciences, Sambalpur University, Jyoti Vihar,Orissa.
3. Edwards, C.A. and J.R. Lofty (1977) "Biology of Earthworms" Chapman and Hall Ltd.,London.
4. Lee, K.E. (1985) "Earthworms: Their ecology and Relationship with Soils and Land Use" Academic Press, Sydney.
5. Jabde P.V. (2005):Text Book Of Applied Zoology ,Discovery publishing house,New Delhi 110002.
6. Jordan E.L.And Verma P.S. (2003): Invertebrate Zoology S.Chand and company Ltd. New Delhi.
7. Kevin, A and K.E.Lee (1989) " Earthworm for Gardeners and Fisherman" (CSIRO,Australia, Division of Soils).
8. Rahudakar V.B. (2004). Gandul khatashivay Naisargeek Paryay, Atul Book Agency,Pune.
9. Satchel, J.E. (1983) "Earthworm Ecology" Chapman Hall, London.
10. Text book of Applied Zoology ,Discovery publishing House, New Delhi.
11. Wallwork, J.A. (1983) "Earthworm Biology" Edward Arnold (Publishers) Ltd. Londo

Department of Zoology

Padmabhushan Vasanttraodada Patil Mahavidyalaya, Tasgaon, Dist.-Sangli (MS)

Vermicomposting & Biotechnology

TIME TABLE

YEAR 2018 – 2019

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9.00 to 10.00am	PBT Theory	SAK Theory		VMJ Theory	PSB Theory	
9.00 To 11.00am			Practical-Alternate PBT/SAK/VMJ/PSB			

Head

*Dr. S. A. Khabade*

Dr. S. A. Khabade

HEAD

DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI

*Dr. R. R. Kumbhar*  
( Dr. R. R. Kumbhar )

Principal

Padmabhushan Dr. Vasanttraodada Patil  
Mahavidyalaya, Tasgaon, (Sangli)



**CERTIFICATE COURSE IN  
"VERMICOMPOSTING BIOTECHNOLOGY"  
ADMISSION -(2018-2019)**

Sr.No.	Name of The Students	Fee in Rs.
1	Miss. Ghadage Arati Rajendra	300 /-
2	Mr.Chavan Omkar Sunil	300 /-
3	Mr.Chavan Vikas Bapurao	300 /-
4	Miss .Hatitkar Komal Jagannath	300 /-
5	Mr.Jadhav Utkarsh Narayan	300 /-
6	Miss. Joshi Mayuri Madhav	300 /-
7	Miss. Marathe Aasawari satish	300 /-
8	Mr.Mursal Inzmam Majjid	300 /-
9	Miss. Pagade Jyoti Anand	300 /-
10	Miss. Patil Anjali Shashikaran	300 /-
11	Miss. Patil Nisha Mahadev	300 /-
12	Miss. Patil Prajakta Ankush	300 /-
13	Miss. Patil Pratiksha Kashinath	300 /-
14	Miss. Patil Pramila Prakash	300 /-
15	Miss. Shendage Ashwini Anandrao	300 /-
16	Miss. Shendage Hemlata Dharmendra	300 /-
17	Miss. Zambre Ankita Bhaskar	300 /-
18	Miss. Jadhav Vijayshree NandKumar	300 /-
19	Miss. Sande Kajal Dattatray	300 /-
20	Miss. Shinde Kajal Chandrrakant	300 /-
	<b>Total -</b>	<b>6000/-</b>

21 Miss Bodake Minal Shankar 300/-  
22 Mr Bhandare Sanjay Vishwas 300/-

(27/12/20)

Total - 6600/-

Co-Ordinator

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**TASGAON, TAL. TASGAON, DIST: SANGLI**

**( MAHARASHTRA)**

**PIN. 416312**

## ADMISSION FORM




Name of Course: VERMICOMPOSTING  
BIOTECHNOLOGY


1. Name of the student Chavan Oankar Sunil.....
2. Subject Zoology.....class BSc III.....
3. Date of birth 17 December 1997.....
4. Caste Open Maratha.....
5. Permanent address HP - V/sapur.  
Tel / Tasgaon Dist : Sangli.....
6. Contact Number 8580100570.....
7. E-mail oankarchavan12@gmail.com.....
8. Paid the fees of Rs 300/-.....on.....

  
Signature of the student

  
Dr. Khabade S. A.  
Course co-ordinator

  
Head of the Department  
HEAD

DEPARTMENT OF ZOOLOGY,  
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**( MAHARASHTRA)**

**PIN. 416312**

## ADMISSION FORM



Name of course: Vermicomposting  
Biotechnology

1. Name of the student ..... Chavan Vikas Bapurao .....
2. Subject... Zoology ..... class .... BSC III .....
3. Date of birth... 11 November 1997 .....
4. Caste ..... VI-NI(A) Ramashi .....
5. Permanent address ..... A/P. Visapur .....
- ..... Tal: Tasgaon ..... Dist: Sangli .....
6. Contact Number ..... 7719041472 .....
7. E-mail ..... Vc.835261@gmail.com .....
8. Paid the fees of Rs. 300/- ..... on .....

Signature of the student

Dr. Khabade S. A.  
Course co-ordinator

Head of the Department

HEAD  
DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
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**( MAHARASHTRA)**

**PIN. 416312**

## ADMISSION FORM



Name of the : - VERMICOMPOSTING  
Course BIOTECHNOLOGY

1. Name of the student ..... Hatikar Komal Jagannath .....

2. Subject..... Zoology ..... class..... B.Sc. III .....

3. Date of birth..... 05/01/1999 .....

4. Caste..... Open .....

5. Permanent address..... A/P - Uplavi .....

..... Tal - Tasgaon Dist - Sangli .....

6. Contact Number..... 8530848650 .....

7. E-mail..... .....

8. Paid the fees of Rs..... 300/- ..... on..... .....

K.J. Hatikar  
Signature of the student

Dr. Khabade S.A.  
Course co-ordinator

Head of the Department

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**PIN. 416312**

## **ADMISSION FORM**



1. Name of the student ..... Jadhav Vijayshree Nandkumar .....
2. Subject..... zoology .....class.....
3. Date of birth..... 30/8/1916 .....
4. Caste..... Hindu - Maratha .....
5. Permanent address..... A/P- sawarde Tal- Tasgaon  
..... Dist- Sangli .....
6. Contact Number..... 8668709491 .....
7. E-mail..... — .....
8. Paid the fees of Rs..... 300 .....on.....

Nadhar  
Signature of the student

Dr. S. A. Khabde  
Course co-ordinator

[Signature]  
Head of the Department

**HEAD**  
**DEPARTMENT OF ZOOLOGY,**  
**PADMABHUSHAN DR. VASANTRAODADA PATIL**  
**MAHAVIDYALAYA, TASGAON, (SANGLI) (O.S.)**

[Signature]  
Principal

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**( MAHARASHTRA)**

**PIN. 416312**

## **ADMISSION FORM**



1. Name of the student ..... *Joshi Mojub' Madhor* .....
2. Subject..... *Zoology* ..... class..... *BSc-III* .....
3. Date of birth..... *19-01-1998* .....
4. Caste..... *Hindu- Brahman* .....
5. Permanent address..... *M.p. dhorelli* .....
- ..... *Taluka- tasgaon ; District- sangli* .....
6. Contact Number..... *9604957950* .....
7. E-mail..... *Imajubi019@gmail.com* .....
8. Paid the fees of Rs..... *300/-* .....on.....

*Mojubi*

Signature of the student

*B. Khabade S. A*

Course co-ordinator

*B. Khabade S. A*

Head of the Department

HEAD  
DEPARTMENT OF ZOOLOGY,  
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*Amruth*  
Principal

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**( MAHARASHTRA)**


**PIN. 416312**


## **ADMISSION FORM**



Name of the course :- **VERMICOMPOSTING  
BIOTECHNOLOGY**


1. Name of the student ..... **Jadhav Utkarsh Narayan** .....
2. Subject..... **Zoology** ..... class..... **Bsc III** .....
3. Date of birth..... **1- march- 1999** .....
4. Caste..... **open - maratha** .....
5. Permanent address..... **At :- DHONDEWADI post :- ped** .....
- ..... **Tal :- Tasgaon Dist :- sangli** .....
6. Contact Number..... **8007686059** .....
7. E-mail..... .....
8. Paid the fees of Rs..... **300** ..... on..... .....

  
Signature of the student

  
Dr. Khabade S.A.  
Course co-ordinator

  
Head of the Department

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DEPARTMENT OF ZOOLOGY,  
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**Principal**  
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## ADMISSION FORM



Name of the course - VERMICOMPOSTING  
BIOTECHNOLOGY

1. Name of the student Miss. MARJANE ASAWANI SATISH.....

2. Subject..... Zoology..... class..... B. Sc. III.....

3. Date of birth..... 09/06/1999.....

4. Caste..... SC.....

5. Permanent address..... A/P. TASGAON, TAL. TASGAON.....

..... Dis. - Sangli.....

6. Contact Number..... 9146655742.....

7. E-mail.....

8. Paid the fees of Rs..... 900/-..... on.....

Signature of the student

Dr. KHABADE S.A  
Course co-ordinator

Head of the Department

HEAD

DEPARTMENT OF ZOOLOGY,  
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**PIN. 416312**

## ADMISSION FORM

Name of the course : VERMICOMPOSTING  
BIOTECHNOLOGY



1. Name of the student ..... Mursal Inzamam Majid
2. Subject..... Zoology .....class..... B.Sc.III
3. Date of birth..... 24 - August - 1998
4. Caste..... OBC
5. Permanent address..... A/P - Tasgaon  
..... Tal - Tasgaon , Dist - Sangli
6. Contact Number..... 8928249090
7. E-mail..... inzamammursal@gmail.com
8. Paid the fees of Rs..... 300/- .....on.....

Mursal

Signature of the student

Dr. Khabade S.A

Course co-ordinator

Dr. Inzamam  
Head of the Department

HEAD  
DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI

Dr. Inzamam  
Principal

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**( MAHARASHTRA)**

**PIN. 416312**



**ADMISSION FORM**

Name of the course - **VERMICOMPOSTING  
BIOTECHNOLOGY**

1. Name of the student **Ms. Pagade Jyoti Anand**

2. Subject **Zoology** class **B.Sc-III**

3. Date of birth **13/January/1998**

4. Caste **Hindu - Swakul Sali**

5. Permanent address **19/382 Yashwantrao colony, New**

**Kolhapur naka, Pehalkatangi 416115, Dist: Kolhapur**

6. Contact Number **9689069538**

7. E-mail

8. Paid the fees of Rs **300/-** on

**Jyoti Pagade**  
Signature of the student

**S. A. Khabade**  
Course co-ordinator

**S. A. Khabade**  
Head of the Department  
**HEAD**

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**( MAHARASHTRA)**

**PIN. 416312**

## ADMISSION FORM



Name of the course: **VERMICOMPOSTING  
BIOTECHNOLOGY**

1. Name of the student **Patil Anjali Shashikant**.....

2. Subject **Zoology**..... class **B.Sc. III**.....

3. Date of birth **23-11-1998**.....

4. Caste **Hindu - Marata**.....

5. Permanent address **Sai-deep Vetchi galli**.....

**Tasgaon**.....

6. Contact Number **9890694047**.....

7. E-mail.....

8. Paid the fees of Rs **300/-**..... on.....

**A.S. Patil.**

Signature of the student

**Dr. Khabade S. A.**  
Course co-ordinator

**Head of the Department**

**HEAD**  
DEPARTMENT OF ZOOLOGY  
PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,  
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**( MAHARASHTRA)**

**PIN. 416312**

## ADMISSION FORM



Name of the Course - VERMICOMPOSTING  
BIOTECHNOLOGY

1. Name of the student Miss. Patil Prajakta Ankush

2. Subject Zoology class B.sc -III

3. Date of birth 16/07/1999

4. Caste NT(C)

5. Permanent address A.P. Turachi, Tal- Tasgaon,

Dis - Sangli

6. Contact Number 9834638752

7. E-mail

8. Paid the fees of Rs 300/- on

Patil

Signature of the student

Dr. Khabade S. A.  
Course co-ordinator

Head of the Department

HEAD  
DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI

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Padmabhushan Dr. Vasantodada Patil  
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**( MAHARASHTRA)**

**PIN. 416312**

## **ADMISSION FORM**



Name of the Course- VERMI COMPOSTING BIOTECHNOLOGY

1. Name of the student Patil Pramila Prakash

2. Subject Zoology class BSC III

3. Date of birth 06/06/1998

4. Caste Hindu- Maratha

5. Permanent address A/P Kuchi, Tal. K. Mahankal

Dist- Sangli

6. Contact Number 8975561587

7. E-mail Pramilapatil1587@gmail.com

8. Paid the fees of Rs 300 Rs on

Patil  
Signature of the student

Dr. Khabade S.A.  
Course co-ordinator

Patil  
Head of the Department  
**HEAD**

DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI

Patil  
Principal  
Padmabhushan Dr. Vasanttraodada Patil  
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**( MAHARASHTRA)**

**PIN. 416312**

## ADMISSION FORM



Name of the course :- VERMICOMPOSTING  
BIOTECHNOLOGY

1. Name of the student ..... Patil Prajakta Kashinath

2. Subject..... Zoology ..... class..... BSC = III

3. Date of birth..... 8-12-1998

4. Caste..... Hindu - Marata

5. Permanent address..... Dhaval Ves, Verchi

..... Galli, Tasgaon.

6. Contact Number..... 9970371067.

7. E-mail..... AkshadaPatil562

8. Paid the fees of Rs..... 300/- ..... on.....

Signature of the student

Course co-ordinator

Head of the Department

HEAD

DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI

Principal

Padmabhushan Dr. Vasanttraodada Patil  
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**( MAHARASHTRA)**

**PIN. 416312**

## ADMISSION FORM



Name of the course - VERMICOMPOSTING BIOTECHNOLOGY

1. Name of the student ..... Patil Nisha Mahadev

2. Subject..... Zoology .....class..... B.Sc III

3. Date of birth..... 19-07-1998

4. Caste..... open


5. Permanent address..... A.P. Uplavi Tal - Tasgaon

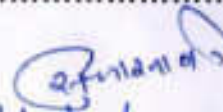
..... Dist - sangli

6. Contact Number..... 8806633565

7. E-mail.....

8. Paid the fees of Rs..... 300 Rs. ....on.....

  
Signature of the student

  
Dr. Khabade S.A.  
Course co-ordinator

  
Head of the Department

HEAD  
DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
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**( MAHARASHTRA)**

**PIN. 416312**

## ADMISSION FORM



Name of the course - VERMPOSTING  
BIOTECHNOLOGY

1. Name of the student Miss. Gande Kajal Dattatray...
2. Subject...zoology.....class....B.Sc. - III.....
3. Date of birth....15-02-1998.....
4. Caste.....open.....
5. Permanent address...A/p Chinchani, Tal - Tasgaon,  
.....Dis - Sangli.....
6. Contact Number...8329874219.....
7. E-mail.....
8. Paid the fees of Rs...300/-.....on.....

*K. Gande*

Signature of the student

*Dr. Khabade S.A*

Course co-ordinator

*Dr. Khabade S.A*

Head of the Department

HEAD

DEPARTMENT OF ZOOLOGY,  
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*Dr. Khabade S.A*

Principal

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Mahavidyalaya, Tasgaon, (Sangli) (O.S.)



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**( MAHARASHTRA)**

**PIN. 416312**

## ADMISSION FORM



Name of course - VERMICOMPOSTING BIOTECHNOLOGY

1. Name of the student ... Miss. Shinde Kajal Chandrakant .....

2. Subject... Zoology ..... class... BSc. III .....

3. Date of birth... 01/02/1999 .....

4. Caste... Open .....

5. Permanent address... At post: Ped: Tal: Tasgaon. .....

..... Dist - Sangli .....

6. Contact Number... 9922911372 .....

7. E-mail.....

8. Paid the fees of Rs... 300/- ..... on.....

Shinde  
Signature of the student

Dr. Khabade S.A.  
Course co-ordinator

Prinemat  
Head of the Department  
HEAD

DEPARTMENT OF ZOOLOGY,  
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Principal  
Principal  
Padmabhushan Dr. Vasantodada Patil  
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**( MAHARASHTRA)**

**PIN. 416312**

## ADMISSION FORM



Name of the Course:- VERMI COMPOSTING BIOTECHNOLOGY

1. Name of the student Miss. Shendage Ashwini Anandrao

2. Subject..... Zoology.....class..... B:SC:III.....

3. Date of birth... 5/12/1998.....


4. Caste... NT-C.....

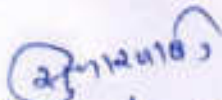
5. Permanent address... At post Ped Tal-Tasgaon Dist Sangli.....

6. Contact Number... 8007665774.....

7. E-mail.....

8. Paid the fees of Rs... 300 Rs... on.....

  
Signature of the student

  
Dr Khabade S.A.  
Course co-ordinator

  
Head of the Department  
HEAD  
DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI

  
Principal  
Padmabhushan Dr. Vasantraodada Patil  
Mahavidyalaya, Tasgaon, (Sangli) (O.S.)

"Dissemination of Education for Knowledge, Science & Culture"

Dr. Bapuji Salunkhe

**Shri. Swami Vivekanand Shikshan Sanstha, Kolhapur.**

(The Centenary Year of Shikshanmaharshi Dr.Bapuji Salunkhe)

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,**

**TASGAON, TAL. TASGAON, DIST: SANGLI**

**( MAHARASHTRA)**

**PIN. 416312**

## ADMISSION FORM



Name of course - VERMICOMPOSTING BIOTECHNOLOGY

1. Name of the student Miss. Shendage Hemlata Dharmender

2. Subject Zoology class B.Sc. III

3. Date of birth 27/7/1999

4. Caste NT-C

5. Permanent address At. post: ped Tal. Tasgaon

Dist:- sangli

6. Contact Number 9595235362

7. E-mail .....

8. Paid the fees of Rs 300/- on .....

Shendage

Signature of the student

Dr. Khabade S.A.

Course co-ordinator

Shendage

Head of the Department

HEAD

DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON, DIST. SANGLI

Patil

Principal

Padmabhushan Dr. Vasantrodada Patil  
Mahavidyalaya, Tasgaon, (Sangli) (O.S.)



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(The Centenary Year of Shikshanmaharshi Dr. Bapuji Salunkhe)

**PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,**

**TASGAON, TAL. TASGAON, DIST: SANGLI**

**( MAHARASHTRA)**

**PIN. 416312**

## **ADMISSION FORM**



1. Name of the student ..... Zambre Ankita Bhaskar .....
2. Subject..... Zoology .....class..... Bsc-III .....
3. Date of birth..... 10-01-1999 .....
4. Caste..... open .....
5. Permanent address..... A/P - Dongarsoni .....
- ..... Tal- Tasgaon ..... Dist- Sangli .....
6. Contact Number..... 9665846671 .....
7. E-mail..... ankitazambre9845@gmail.com .....
8. Paid the fees of Rs..... 300/- .....on..... .....
- Name of the course- VERMICOMPOSTING BIOTECHNOLOGY

Ankita Zambre  
Signature of the student

Dr. Khabade S. A.  
Course co-ordinator

**HEAD**  
**DEPARTMENT OF ZOOLOGY,**  
**PADMABHUSHAN DR. VASANTRAODADA PATIL**  
**Maha Vidyalaya, Tasgaon, (Sangli) (O.S.)**  
Head of the Department

[Signature]  
**Principal**  
Padmabhushan Dr. Vasantodada Patil  
Maha Vidyalaya, Tasgaon, (Sangli) (O.S.)



## Zoology Certificate Course In Zoology 2018-19

### Student Enrollment List For Certificate course in "Vermicomposting Biotechnology"

Sr.No	Roll No	Name of The Students	Signature
1.	6099	BANSODE PRADNYA ARUN	<i>Padke</i>
2.	6100	BODAKE MINAL SHANKAR	<i>BMinal</i>
3.	6101	CHAVAN OMKAR SUNIL	<i>Omkar C.</i>
4.	6102	CHAVAN VIKAS BAPURAO	<i>Vikasbap</i>
5.	6103	GHADAGE ARATI RAJENDRA	<i>Arati</i>
6.	6104	HATITKAR KOMAL JAGANNATH	<i>Komaltitkar</i>
7.	6105	JADHAV UTKARSH NARAYAN	<i>Utkarsh</i>
8.	6106	JOSHI MAYURI MADHAV	<i>Mesashi</i>
9.	6107	MARATHE ASAWARI SATISH	<i>Asawari Marathe</i>
10.	6108	MURSAL INZAMAM MAJJID	<i>IM Mursal</i>
11.	6109	PAGADE JYOTI ANAND	<i>Pagade</i>
12.	6110	PATIL ANJALI SHASHIKRAN	<i>Anjali</i>
13.	6111	PATIL NISHA MAHADEV	<i>Patil Nisha</i>
14.	6112	PATIL PRAJAKTA ANKUSH	<i>PA</i>
15.	6113	PATIL PRAJAKTA KASHINATH	<i>Patilprajakta</i>
16.	6114	SHENDAGE ASHWINI ANANDRAO	<i>Ashwinishendge</i>
17.	6115	SHENDAGE HEMLATA DHARMENDRA	<i>Hshendge</i>
18.	6116	SHINDE KAJAL CHANDRAKANT	<i>Kshinde</i>
19.	6117	ZAMBRE ANKITA BHASKAR	<i>Zambre A.</i>
20.	6297	BHANDARE SANJAY VISHWAS	<i>SBRSV</i>
21.	6298	JADHAV VIJAYSHREE NANDKUMAR	<i>Vshree</i>
22.	6299	PATIL PRAMILA PRAKASH	<i>Ppramila</i>
23.	6300	SANDE KAJAL DATTATRAY	<i>Kajals</i>
24.	5062	DOMBE AISHWARYA NILKANTH	<i>Ashin</i>
25.	5063	DOUND RUTUJA CHAKRAPANI	<i>Rutuja</i>
26.	5064	ERANDOLE SHUBHANGI MAHADEV	<i>Shubhangi</i>

27.	5065	GAIKWAD POONAM SHANKAR	P. S. Gaikwad
28.	5066	GHUTUGADE SHANKAR HARIBA	Ghutugade
29.	5067	GIRI KAVITA SANJAY	Kesri
30.	5068	JADHAV BHAGYASHRI BHASKAR	Bhaskar
31.	5070	KADAM NILESH PANDURANG	N. Kadam
32.	5071	KADAM SHRADDHA SATISH	Shraddha
33.	5072	KAMBLE SHIVANI SANJAY	Kamble
34.	5073	KHUPKAR PRIYANKA LAHU	Khupkar PR
35.	5074	KUKADE VICKY SURESH	Kukade
36.	5075	KULKARNI VAISHNAVI SURESH	V. S. Kulkarni
37.	5076	MADANE KOMAL SARJERAO	Madane
38.	5077	MALI ASHWINI RAMCHANDRA	Ashwini
39.	5079	MALI PRANALI BALASO	P. Malu
40.	5080	MALI SAKSHI MILIND	M. Sakshi
41.	5081	MANE AVIRAJ SANJAY	AVS
42.	5082	MOHITE AMRUTA MANIK	M. Amruta
43.	5083	MORE OMKAR DINKAR	O. More
44.	5084	NALAWADE POOJA TANAJI	Pooja Nalawade
45.	5085	PATIL KIRTI SURESH	Patil
46.	5086	PATIL RUTUJA TANAJI	R. Patil
47.	5087	PATOLE SAYALI RAMCHANDRA	S. Patole
48.	5088	PAWAR SHRADDHA BALASAHEB	P. Pawar
49.	5089	POL BHUSHAN ANIL	B. Pol
50.	5090	RANKHAMBE SHUBHAM PRADIP	R. Rankhambe
51.	5091	SALUNKHE SNEHAL DINESH	S. D. Salunkhe
52.	5092	SAYYAD ALISHA HAMID	S. Alishah
53.	5093	SHENDAGE ANKITA TUKARAM	A. Shendage
54.	5094	SHENDAGE PRATIKSHA ASHOK	P. Shendage
55.	5095	SHENDAGE RUPALI BALASO	R. Shendage
56.	5096	SHINDE AJINKYA VASANT	A. Shinde
57.	5097	SHINDE KALYANI SANJAY	K. Shinde
58.	5098	THORAWAT ANIKET SANJAY	T. Thorawat
59.	5099	YALMAR DIPALI LALASO	Y. Almar
60.	5455	KALE KAJAL KISAN	K. Kale
61.	5118	MUJAWAR AARJOO ASLAM	M. Mujawar
62.	5248	BAGANE RAMCHANDRA VITTHAL	B. Bagane



63.	5249	BHANDARE SARIKA ANNASO	Bhandare S.
64.	5250	BODAKE SAKSHI SHANKAR	S.S. Bodake
65.	5251	CHAVAN NILAM JALINDAR	N Chavan
66.	5252	CHAVAN PRAMILA PANDURANG	P Chavan
67.	5253	CHAVAN VIJAY VITTHAL	Vijal C.
68.	5254	CHOUGULE TEJAL VILAS	T Chougule
69.	5255	DABADE ROHIT RAMESH	R Dabade
70.	5256	DALAVI AARTI RAJENDRA	A R Dalavi
71.	5257	DESAI AMRUTA MADHUKAR	A Desai
72.	5258	DEVARSHI KAJAL KASHINAATH	K Devarshi
73.	5259	DHARKAR PRATIBHA DATTATRAY	P Dharkar
74.	5260	ERANDOLE RUTUJA SHIVAJI	R Erandole
75.	5261	GADAVE PRATIKSHA LAXMAN	P Gadave
76.	5262	GAIKWAD SOURABH EKNATH	S GaiKWad
77.	5263	GAVADE PALLAVI ATMARAM	PAG
78.	5264	GAVADE SHITAL ASHOK	Gavade
79.	5265	GHATAGE SNEHAL PANDURANG	S Ghatage
80.	5266	HAKKE POOJA ANANDRAO	P Hakke
81.	5267	HAKKE TEJASWINI BHAGVAT	T Hakke
82.	5268	HIVARE RUPALI VITTHAL	RHV
83.	5269	JADHAV PRADNYA SHASHIKANT	P Pradnya
84.	5270	JADHAV GAYATRI NANDKUMAR	G. N. Jadhav
85.	5271	JADHAV GOURI RAGHUNATH	G. R. Jadhav
86.	5272	JADHAV POOJA SANJAY	P Jadhav
87.	5273	JADHAV RUTUJA TANAJI	R J
88.	5274	JADHAV SONALI BABAN	जाधव सोनली
89.	5275	JADHAV SWAPNALI SUBHASH	S.S. Jadhav
90.	5276	JADHAV SWAPNALI TANAJI	S Jadhav
91.	5277	JAMADADE MAYURI VISHNU	Jamadad M.
92.	5278	JAMADADE RUTUJA SUBHASH	R Jamadade
93.	5279	KADAM RUSHIKESH UMESH	R Kadam
94.	5280	KAMBLE PALLAVI ANAND	A.P. Kamble
95.	5281	KARANDE RUTVIK KUBER	R Karande
96.	5282	KHANDAGALE KAJAL MADHUKAR	Khandagale Kajal
97.	5283	KHARADE ABHISHEK KHANDERAO	A Kharade
98.	5284	KHARADE ROHAN SHANKAR	खरडे



99.	5285	KHARAT RAHUL LAXMAN	श्रीधर खरत
100.	5286	KORE NAMRATA SHRIKANT	NEK
101.	5287	LANDAGE DIPALI TANAJI	DL
102.	5288	LANDAGE MAYURI POPAT	Landagemayuri
103.	5289	LANDAGE SURAJ VITTHAL	SA
104.	5290	LIMGIDE PALLAVI GAJANAN	Bsilimgide
105.	5291	MAINIKAR POONAM ANIL	Poonam
106.	5292	MALI ASHWINI CHANDRAKANT	Malikshwini
107.	5293	MALI PRANITA KUMAR	PKmali
108.	5294	MALI PRIYA ISHWAR	PI mali
109.	5295	MALI SUHAS SANJAY	शुभ
110.	5296	BEDAGE SUREKHA DAGADU	Sbedage
111.	5297	MANE ANKITA ADHIKRAO	A.A. Mane
112.	5298	MANE PRATIBHA MANIK	MP
113.	5299	MANE SAMRUDDHI MOHAN	SM
114.	5300	MANE SUPRIYA PRATAP	SP
115.	5301	MANE TRUPTI VIJAY	TV
116.	5302	MANE VARSHA DHONDIRAM	VMane
117.	5303	MHETRE SARIKA SANJAY	Mhertre S
118.	5304	MIRAJKAR YOGESH DHANANJAY	Mirajkar y
119.	5305	MOHITE AISHWARYA VINOD	A. V. Mohite
120.	5306	MOHITE ASHWINI KUNDLIK	AK
121.	5307	MOHITE PRATIK BHARAT	PMohite
122.	5309	MOHITE VEDANTI DILIP	VD
123.	5310	MORE ABHIJIT APPASO	more A
124.	5312	MULANI MUBIN MAHEBUB	M.M. mulani
125.	5313	NALAWADE RAHUL SANTOSHKUMAR	Nalwade R.

*(Signature)*

HEAD  
DEPARTMENT OF ZOOLOGY,  
PADMABHUSHAN DR. VASANTRAO DADA MTR  
MAHAVIDYALAYA, TARGON, DIST. SANGLI













97.	5283	KHARADE ABHISHEK KHANDERAQ	P	P	P	P	P	P	P	P	P	P
98.	5284	KHARADE ROHAN SHANKAR	P	P	P	P	P	P	P	P	P	P
99.	5285	KHARAT RAHUL LAXMAN	P	P	P	P	P	P	P	P	P	P
100.	5286	KORE NAMRATA SHRIKANT	P	P	P	P	P	P	P	P	P	P
101.	5287	LANDAGE DIPALI TANAJI	P	P	P	P	P	P	P	P	P	P
102.	5288	LANDAGE MAYURI POPAT	P	P	P	P	P	P	P	P	P	P
103.	5289	LANDAGE SURAJ VITTHAL	P	P	P	P	P	P	P	P	P	P
104.	5290	LINGIDE PALLAVI GAJANAN	P	P	P	P	P	P	P	P	P	P
105.	5291	MAINKAR POONAM ANIL	P	P	P	P	P	P	P	P	P	P
106.	5292	MALI ASHWINI CHANDRAKANT	P	P	P	P	P	P	P	P	P	P
107.	5293	MALI PRANITA KUMAR	P	P	P	P	P	P	P	P	P	P
108.	5294	MALI PRIYA ISHWAR	P	P	P	P	P	P	P	P	P	P
109.	5295	MALI SUHAS SANJAY	P	P	P	P	P	P	P	P	P	P
110.	5296	BEDAGE SUREKHA DAGADU	P	P	P	P	P	P	P	P	P	P
111.	5297	MANE ANKITA ADHIKRAO	P	P	P	P	P	P	P	P	P	P
112.	5298	MANE PRATIBHA MANIK	P	P	P	P	P	P	P	P	P	P
113.	5299	MANE SAMRUDDHI MOHAN	P	P	P	P	P	P	P	P	P	P
114.	5300	MANE SUPRIYA PRATAP	P	P	P	P	P	P	P	P	P	P
115.	5301	MANE TRUPTI VIJAY	P	P	P	P	P	P	P	P	P	P
116.	5302	MANE VARSHA DHONDIRAM	P	P	P	P	P	P	P	P	P	P
117.	5303	MHETRE SARIKA SANJAY	P	P	P	P	P	P	P	P	P	P
118.	5304	MIRAJKAR YOGESH DHANANJAY	P	P	P	P	P	P	P	P	P	P
119.	5305	MOHITE AISHWARYA VINOD	P	P	P	P	P	P	P	P	P	P
120.	5306	MOHITE ASHWINI KUNDLIK	P	P	P	P	P	P	P	P	P	P
121.	5307	MOHITE PRATIK BHARAT	P	P	P	P	P	P	P	P	P	P
122.	5309	MOHITE VEDANTI DILIP	P	P	P	P	P	P	P	P	P	P
123.	5310	MORE ABHIJIT APPASO	P	P	P	P	P	P	P	P	P	P
124.	5312	MULANI MUBIN MAHEBUB	P	P	P	P	P	P	P	P	P	P
125.	5313	NALAWADE RAHUL SANTOSHKUMAR	P	P	P	P	P	P	P	P	P	P

(15) Te-PR  
 (16) Bhamburda  
 Te-PR  
 Shrikant  
 Bhamburda  
 Shrikant  
 Te-PR  
 (15)

## Zoology Certificate Course In Zoology 2018-19

### Presentee List For Certificate course in

### “Vermicomposting Biotechnology”

Sr. No	Roll No	Name of The Students	Date										
			25/1/19	28/1/19	30/1/19	1/2/19	2/2/19	4/2/19	5/2/19	6/2/19	7/2/19	8/2/19	
1.	6099	BANSODE PRADNYA ARUN	P	P	P	P	P	P	P	P	P	P	P
2.	6100	BODAKE MINAL SHANKAR	P	P	P	P	P	P	P	P	P	P	P
3.	6101	CHAVAN OMKAR SUNIL	P	A	P	P	P	P	P	P	P	P	P
4.	6102	CHAVAN VIKAS BAPURAO	P	P	P	P	P	A	P	P	P	P	P
5.	6103	GHADAGE ARATI RAJENDRA	P	P	P	P	P	P	P	P	A	P	P
6.	6104	HATITKAR KOMAL JAGANNATH	P	P	P	P	P	P	P	A	P	P	P
7.	6105	JADHAV UTKARSH NARAYAN	P	P	P	P	P	P	P	P	P	P	P
8.	6106	JOSHI MAYURI MADHAV	P	P	P	P	P	P	P	P	P	P	P
9.	6107	MARATHE ASAWARI SATISH	A	P	P	P	A	P	P	P	P	P	P
10.	6108	MURSAL INZAMAM MAJID	A	P	P	P	P	P	P	P	P	P	P
11.	6109	PAGADE JYOTI ANAND	P	P	P	P	P	P	P	P	P	P	P
12.	6110	PATIL ANJALI SHASHIKRAN	P	P	P	P	P	P	P	P	P	P	P
13.	6111	PATIL NISHA MAHADEV	P	P	P	P	P	P	P	P	P	P	P
14.	6112	PATIL PRAJAKTA ANKUSH	P	P	P	P	P	P	A	P	P	P	P
15.	6113	PATIL PRAJAKTA KASHINATH	P	P	P	P	P	P	P	P	P	P	P
16.	6114	SHENDAGE ASHWINI ANANDRAO	P	P	P	P	P	P	P	P	A	A	P
17.	6115	SHENDAGE HEMLATA DHARMENDRA	P	P	P	P	P	P	P	P	P	P	P
18.	6116	SHINDE KAJAL CHANDRAKANT	P	P	P	P	P	P	P	P	P	P	P
19.	6117	ZAMBRE ANKITA BHASKAR	P	P	P	P	P	P	P	P	A	P	P
20.	6297	BHANDARE SANJAY VISHWAS	P	P	P	P	P	P	P	P	P	P	P
21.	6298	JADHAV VIJAYSHREE NANDKUMAR	P	P	P	P	P	P	P	P	A	P	P
22.	6299	PATIL PRAMILA PRAKASH	P	P	P	P	P	P	P	P	P	P	P
23.	6300	SANDE KAJAL DATTATRAY	P	P	P	P	P	P	P	P	A	P	P
24.	5062	DOMBE AISHWARYA NILKANTH	P	P	P	A	P	P	P	P	P	P	P







61.	5118	MUJAWAR AARJOO ASLAM	P	P	P	P	P	P	P	P	P	P	P
62.	5248	BAGANE RAMCHANDRA VITTHAL	P	P	P	P	P	P	P	P	P	P	P
63.	5249	BHANDARE SARIKA ANNASO	P	P	P	P	P	P	P	P	P	P	P
64.	5250	BODAKE SAKSHI SHANKAR	P	P	P	P	P	P	P	P	P	P	P
65.	5251	CHAVAN NILAM JALINDAR	P	P	P	P	P	P	P	P	P	P	P
66.	5252	CHAVAN PRAMILA PANDURANG	P	P	P	P	P	P	P	P	P	P	P
67.	5253	CHAVAN VIJAY VITTHAL	P	P	P	P	P	P	P	P	P	P	P
68.	5254	CHOUGULE TEJAL VILAS	P	P	P	P	P	P	P	P	P	P	P
69.	5255	DABADE ROHIT RAMESH	P	P	P	P	P	P	P	P	P	P	P
70.	5256	DALAVI AARTI RAJENDRA	P	P	P	P	P	P	P	P	P	P	P
71.	5257	DESAI AMRUTA MADHUKAR	P	P	P	P	P	P	P	P	P	P	P
72.	5258	DEVARSHI KAJAL KASHINAATH	P	P	P	P	P	P	P	P	P	P	P
73.	5259	DHARKAR PRATIBHA DATTATRAY	P	P	P	P	P	P	P	P	P	P	P
74.	5260	ERANDOLE RUTUJA SHIVAJI	P	P	P	P	P	P	P	P	P	P	P
75.	5261	GADAVE PRATIKSHA LAXMAN	A	P	P	P	P	P	P	P	P	P	P
76.	5262	GAIKWAD SOURABH EKNATH	P	P	P	P	P	P	P	P	P	P	P
77.	5263	GAVADE PALLAVI ATMARAM	P	P	P	P	P	P	P	P	P	P	P
78.	5264	GAVADE SHITAL ASHOK	P	P	P	P	P	P	P	P	P	P	P
79.	5265	GHATAGE SNEHAL PANDURANG	P	P	P	P	P	P	P	P	P	P	P
80.	5266	HAKKE POOJA ANANDRAO	P	P	P	P	P	P	P	P	P	P	P
81.	5267	HAKKE TEJASWINI BHAGVAT	P	P	P	P	P	P	P	P	P	P	P
82.	5268	HIVARE RUPALI VITTHAL	P	P	P	P	P	P	P	P	P	P	P
83.	5269	JADHAV PRADNYA SHASHIKANT	P	P	P	P	P	P	P	P	P	P	P
84.	5270	JADHAV GAYATRI NANDKUMAR	P	P	P	P	P	P	P	P	P	P	P
85.	5271	JADHAV GOURI RAGHUNATH	P	P	P	P	P	P	P	P	P	P	P
86.	5272	JADHAV POOJA SANJAY	P	P	P	P	P	P	P	P	P	P	P
87.	5273	JADHAV RUTUJA TANAJI	P	P	P	P	P	P	P	P	P	P	P
88.	5274	JADHAV SONALI BABAN	P	P	P	P	P	P	P	P	P	P	P
89.	5275	JADHAV SWAPNALI SUBHASH	P	P	P	P	P	P	P	P	P	P	P
90.	5276	JADHAV SWAPNALI TANAJI	P	P	P	P	P	P	P	P	P	P	P
91.	5277	JAMADADE MAYURI VISHNU	P	P	P	P	P	P	P	P	P	P	P
92.	5278	JAMADADE RUTUJA SUBHASH	P	P	P	P	P	P	P	P	P	P	P
93.	5279	KADAM RUSHIKESH UMESH	P	P	P	P	P	P	P	P	P	P	P
94.	5280	KAMBLE PALLAVI ANAND	P	P	P	P	P	P	P	P	P	P	P
95.	5281	KARANDE RUTVIK KUBER	P	P	P	P	P	P	P	P	P	P	P
96.	5282	KHANDAGALE KAJAL MADHUKAR	P	P	A	P	P	P	P	P	P	P	P



97.	5283	KHARADE ABHISHEK KHANDERAQ	P	P	P	P	P	P	P	P	P	P
98.	5284	KHARADE ROHAN SHANKAR	P	P	P	P	P	P	P	P	P	P
99.	5285	KHARAT RAHUL LAXMAN	P	P	P	P	P	P	P	P	P	P
100.	5286	KORE NAMRATA SHRIKANT	P	P	P	P	P	P	P	P	P	P
101.	5287	LANDAGE DIPALI TANAJI	P	P	P	P	P	P	P	P	P	P
102.	5288	LANDAGE MAYURI POPAT	P	P	P	P	P	P	P	P	P	P
103.	5289	LANDAGE SURAJ VITTHAL	P	P	P	P	P	P	P	P	P	P
104.	5290	LIMGIDE PALLAVI GAJANAN	P	P	P	P	P	P	P	P	P	P
105.	5291	MAINKAR POONAM ANIL	P	P	P	P	P	P	P	P	P	P
106.	5292	MALI ASHWINI CHANDRAKANT	P	P	P	P	P	P	P	P	P	P
107.	5293	MALI PRANITA KUMAR	P	P	P	P	P	P	P	P	P	P
108.	5294	MALI PRIYA ISHWAR	P	P	P	P	P	P	P	P	P	P
109.	5295	MALI SUHAS SANJAY	P	P	P	P	P	P	P	P	P	P
110.	5296	BEDAGE SUREKHA DAGADU	P	P	P	P	P	P	P	P	P	P
111.	5297	MANE ANKITA ADHIKRAO	P	P	P	P	P	P	P	P	P	P
112.	5298	MANE PRATIBHA MANIK	P	P	P	P	P	P	P	P	P	P
113.	5299	MANE SAMRUDDHI MOHAN	P	P	P	P	P	P	P	P	P	P
114.	5300	MANE SUPRIYA PRATAP	P	P	P	P	P	P	P	P	P	P
115.	5301	MANE TRUPTI VIJAY	P	P	P	P	P	P	P	P	P	P
116.	5302	MANE VARSHA DHONDIRAM	P	P	P	P	P	P	P	P	P	P
117.	5303	MHETRE SARIKA SANJAY	P	P	P	P	P	P	P	P	P	P
118.	5304	MIRAJKAR YOGESH DHANANJAY	P	P	P	P	P	P	P	P	P	P
119.	5305	MOHITE AISHWARYA VINOD	P	P	P	P	P	P	P	P	P	P
120.	5306	MOHITE ASHWINI KUNDLIK	P	P	P	P	P	P	P	P	P	P
121.	5307	MOHITE PRATIK BHARAT	P	P	P	P	P	P	P	P	P	P
122.	5309	MOHITE VEDANTI DILIP	P	P	P	P	P	P	P	P	P	P
123.	5310	MORE ABHIJIT APPASO	P	P	P	P	P	P	P	P	P	P
124.	5312	MULANI MUBIN MAHEBUB	P	P	P	P	P	P	P	P	P	P
125.	5313	NALAWADE RAHUL SANTOSHKUMAR	P	P	P	P	P	P	P	P	P	P

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97.	5283	KHARADE ABHISHEK KHANDERAQ	P	A	P	P	P	P	P	P	P	P	P
98.	5284	KHARADE ROHAN SHANKAR	P	P	P	P	P	P	P	P	P	P	P
99.	5285	KHARAT RAHUL LAXMAN	P	P	P	P	P	P	P	P	P	P	P
100.	5286	KORE NAMRATA SHRIKANT	P	P	P	P	P	P	P	P	P	P	P
101.	5287	LANDAGE DIPALI TANAJI	P	P	P	P	P	P	P	P	P	P	P
102.	5288	LANDAGE MAYURI POPAT	P	P	P	P	P	P	P	P	P	P	P
103.	5289	LANDAGE SURAJ VITTHAL	P	P	P	P	P	P	P	P	P	P	P
104.	5290	LINGIDE PALLAVI GAJANAN	P	P	P	P	P	P	P	P	P	P	P
105.	5291	MAINKAR POONAM ANIL	P	P	P	P	P	P	P	P	P	P	P
106.	5292	MALI ASHWINI CHANDRAKANT	P	P	P	P	P	P	P	P	P	P	P
107.	5293	MALI PRANITA KUMAR	P	P	P	P	P	P	P	P	P	P	P
108.	5294	MALI PRIYA ISHWAR	P	P	P	P	P	P	P	P	P	P	P
109.	5295	MALI SUHAS SANJAY	P	P	P	P	P	P	P	P	P	P	P
110.	5296	BEDAGE SUREKHA DAGADU	P	P	P	P	P	P	P	P	P	P	P
111.	5297	MANE ANKITA ADHIKRAO	P	P	P	P	P	P	P	P	P	P	P
112.	5298	MANE PRATIBHA MANIK	P	P	P	P	P	P	P	P	P	P	P
113.	5299	MANE SAMRUDDHI MOHAN	P	P	P	P	P	P	P	P	P	P	P
114.	5300	MANE SUPRIYA PRATAP	P	P	P	P	P	P	P	P	P	P	P
115.	5301	MANE TRUPTI VIJAY	P	P	P	P	P	P	P	P	P	P	P
116.	5302	MANE VARSHA DHONDIRAM	P	A	P	P	P	P	P	P	P	P	P
117.	5303	MHETRE SARIKA SANJAY	P	P	P	P	P	P	P	P	P	P	P
118.	5304	MIRAJKAR YOGESH DHANANJAY	P	P	A	P	P	P	P	P	P	P	P
119.	5305	MOHITE AISHWARYA VINOD	P	P	P	P	P	P	P	P	P	P	P
120.	5306	MOHITE ASHWINI KUNDLIK	P	P	P	P	P	P	P	P	P	P	P
121.	5307	MOHITE PRATIK BHARAT	P	P	P	P	P	P	P	P	P	P	P
122.	5309	MOHITE VEDANTI DILIP	P	P	P	P	P	P	P	P	P	P	P
123.	5310	MORE ABHIJIT APPASO	P	P	P	P	P	P	P	P	P	P	P
124.	5312	MULANI MUBIN MAHEBUB	P	P	P	P	P	P	P	P	P	P	P
125.	5313	NALAWADE RAHUL SANTOSHKUMAR	P	P	P	P	P	P	P	P	P	P	P

*Bhambhani*

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## Zoology Certificate Course In Zoology 2018-19

### Exam Presentee List For Certificate course in

### “Vermicomposting Biotechnology”

Sr.No	Roll No	Name of The Students	Signature
1.	6099	BANSODE PRADNYA ARUN	Banke
2.	6100	BODAKE MINAL SHANKAR	BMinal.
3.	6101	CHAVAN OMKAR SUNIL	OmkarC.
4.	6102	CHAVAN VIKAS BAPURAO	VbJadhav
5.	6103	GHADAGE ARATI RAJENDRA	Arati.
6.	6104	HATITKAR KOMAL JAGANNATH	Komhatitkar
7.	6105	JADHAV UTKARSH NARAYAN	UnJadhav
8.	6106	JOSHI MAYURI MADHAV	Miyoshi
9.	6107	MARATHE ASAWARI SATISH	AsawariMarathe
10.	6108	MURSAL INZAMAM MAJJID	Imajid
11.	6109	PAGADE JYOTI ANAND	Jyotipagade.
12.	6110	PATIL ANJALI SHASHIKRAN	Anjali.
13.	6111	PATIL NISHA MAHADEV	Nishapatil
14.	6112	PATIL PRAJAKTA ANKUSH	PJA
15.	6113	PATIL PRAJAKTA KASHINATH	Prajaktapatil.
16.	6114	SHENDAGE ASHWINI ANANDRAO	Ashwinishendage.
17.	6115	SHENDAGE HEMLATA DHARMENDRA	Hshendage.
18.	6116	SHINDE KAJAL CHANDRAKANT	Kshinde
19.	6117	ZAMBRE ANKITA BHASKAR	ZambreA.
20.	6297	BHANDARE SANJAY VISHWAS	BHVSV.
21.	6298	JADHAV VIJAYSHREE NANDKUMAR	Vijayshree.
22.	6299	PATIL PRAMILA PRAKASH	PPrAMILA.
23.	6300	SANDE KAJAL DATTATRAY	KajalS.
24.	5062	DOMBE AISHWARYA NILKANTH	Aishwarya.
25.	5063	DOUNDE RUTUJA CHAKRAPANI	Rutuja.
26.	5064	ERANDOLE SHUBHANGI MAHADEV	EShubhangi.



27.	5065	GAIKWAD POONAM SHANKAR	P. G. GaiKWad
28.	5066	GHUTUGADE SHANKAR HARIBA	S. Ghutugade.
29.	5067	GIRI KAVITA SANJAY	(B) Girai
30.	5068	JADHAV BHAGYASHRI BHASKAR	Bhaskar
31.	5070	KADAM NILESH PANDURANG	N. P. Kadam
32.	5071	KADAM SHRADDHA SATISH	S. Shradha.
33.	5072	KAMBLE SHIVANI SANJAY	S. Kamble
34.	5073	KHUPKAR PRIYANKA LAHU	K. Khupkar P.R.
35.	5074	KUKADE VICKY SURESH	R. Kukde
36.	5075	KULKARNI VAISHNAVI SURESH	V. Kulkarni
37.	5076	MADANE KOMAL SARJERAO	M. Madane
38.	5077	MALI ASHWINI RAMCHANDRA	A. Malvi.
39.	5079	MALI PRANALI BALASO	P. Malvi
40.	5080	MALI SAKSHI MILIND	M. Sakshi.
41.	5081	MANE AVIRAJ SANJAY	A. Mane.
42.	5082	MOHITE AMRUTA MANIK	M. Mohite Amruta.
43.	5083	MORE OMKAR DINKAR	O. More
44.	5084	NALAWADE POOJA TANAJI	P. Nalawade.
45.	5085	PATIL KIRTI SURESH	P. Patil
46.	5086	PATIL RUTUJA TANAJI	P. Rutuja.
47.	5087	PATOLE SAYALI RAMCHANDRA	P. Patole Sayali.
48.	5088	PAWAR SHRADDHA BALASAHEB	P. Pawar Shradha.
49.	5089	POL BHUSHAN ANIL	A. Pol
50.	5090	RANKHAMBE SHUBHAM PRADIP	P. Rankambe.
51.	5091	SALUNKHE SNEHAL DINESH	S. P. Salunkhe
52.	5092	SAYYAD ALISHA HAMID	S. Snehal Salunkhe
53.	5093	SHENDAGE ANKITA TUKARAM	A. Ankita.
54.	5094	SHENDAGE PRATIKSHA ASHOK	P. Pratiksha.
55.	5095	SHENDAGE RUPALI BALASO	S. Shendage Rupali.
56.	5096	SHINDE AJINKYA VASANT	A. Shinde
57.	5097	SHINDE KALYANI SANJAY	S. Shinde Sanjay.
58.	5098	THORAWAT ANIKET SANJAY	T. Thorawat A.
59.	5099	YALMAR DIPALI LALASO	Y. Yalmar
60.	5455	KALE KAJAL KISAN	K. Kale
61.	5118	MUJAWAR AARJOO ASLAM	M. Mujawar
62.	5248	BAGANE RAMCHANDRA VITTHAL	P. Bagane

63.	5249	BHANDARE SARIKA ANNASO	Bhandare S
64.	5250	BODAKE SAKSHI SHANKAR	S.S. Bodake
65.	5251	CHAVAN NILAM JALINDAR	Nichavan
66.	5252	CHAVAN PRAMILA PANDURANG	Bchavan
67.	5253	CHAVAN VIJAY VITTHAL	Vijal C.
68.	5254	CHOUGULE TEJAL VILAS	Chougule
69.	5255	DABADE ROHIT RAMESH	Dabade
70.	5256	DALAVI AARTI RAJENDRA	Dalavi
71.	5257	DESAI AMRUTA MADHUKAR	Desai
72.	5258	DEVARSHI KAJAL KASHINAATH	Devarshi
73.	5259	DHARKAR PRATIBHA DATTATRAY	Dharkar
74.	5260	ERANDOLE RUTUJA SHIVAJI	Erandole
75.	5261	GADAVE PRATIKSHA LAXMAN	Gadave
76.	5262	GAIKWAD SOURABH EKNATH	Gaikwad
77.	5263	GAVADE PALLAVI ATMARAM	Gavade
78.	5264	GAVADE SHITAL ASHOK	Gavade
79.	5265	GHATAGE SNEHAL PANDURANG	Ghatage
80.	5266	HAKKE POOJA ANANDRAO	Hakke
81.	5267	HAKKE TEJASWINI BHAGVAT	Hakke
82.	5268	HIVARE RUPALI VITTHAL	Hivare
83.	5269	JADHAV PRADNYA SHASHIKANT	Pradnya
84.	5270	JADHAV GAYATRI NANDKUMAR	G. N. Jadhav
85.	5271	JADHAV GOURI RAGHUNATH	G. R. Jadhav
86.	5272	JADHAV POOJA SANJAY	P. S. Jadhav
87.	5273	JADHAV RUTUJA TANAJI	R. T. Jadhav
88.	5274	JADHAV SONALI BABAN	S. B. Jadhav
89.	5275	JADHAV SWAPNALI SUBHASH	S. S. Jadhav
90.	5276	JADHAV SWAPNALI TANAJI	S. T. Jadhav
91.	5277	JAMADADE MAYURI VISHNU	M. V. Jamdade
92.	5278	JAMADADE RUTUJA SUBHASH	R. S. Jamdade
93.	5279	KADAM RUSHIKESH UMESH	Kadam
94.	5280	KAMBLE PALLAVI ANAND	A. P. Kamble
95.	5281	KARANDE RUTVIK KUBER	R. K. Karande
96.	5282	KHANDAGALE KAJAL MADHUKAR	Khandagale Kajal
97.	5283	KHARADE ABHISHEK KHANDERAO	A. K. Khare
98.	5284	KHARADE ROHAN SHANKAR	R. S. Khare



99.	5285	KHARAT RAHUL LAXMAN	Kharat R
100.	5286	KORE NAMRATA SHRIKANT	NSK
101.	5287	LANDAGE DIPALI TANAJI	DL
102.	5288	LANDAGE MAYURI POPAT	Landagemayuri
103.	5289	LANDAGE SURAJ VITTHAL	SV
104.	5290	LIMGIDE PALLAVI GAJANAN	Pallavide
105.	5291	MAINKAR POONAM ANIL	Poonam
106.	5292	MALI ASHWINI CHANDRAKANT	M.Ashwini
107.	5293	MALI PRANITA KUMAR	PKMali
108.	5294	MALI PRIYA ISHWAR	PIMali
109.	5295	MALI SUHAS SANJAY	S.S.
110.	5296	BEDAGE SUREKHA DAGADU	Sbedage
111.	5297	MANE ANKITA ADHIKRAO	A.A. Mane
112.	5298	MANE PRATIBHA MANIK	PM
113.	5299	MANE SAMRUDDHI MOHAN	SM
114.	5300	MANE SUPRIYA PRATAP	SP
115.	5301	MANE TRUPTI VIJAY	TV
116.	5302	MANE VARSHA DHONDIRAM	VM
117.	5303	MHETRE SARIKA SANJAY	MS.S.
118.	5304	MIRAJKAR YOGESH DHANANJAY	Mirajkar yogesh
119.	5305	MOHITE AISHWARYA VINOD	A.V. Mohite
120.	5306	MOHITE ASHWINI KUNDLIK	AM
121.	5307	MOHITE PRATIK BHARAT	PMohite
122.	5309	MOHITE VEDANTI DILIP	VM
123.	5310	MORE ABHIJIT APPASO	More A
124.	5312	MULANI MUBIN MAHEBUB	M.M. Mulani
125.	5313	NALAWADE RAHUL SANTOSHKUMAR	Nalawade R.

  
**HEAD**  
 DEPARTMENT OF ZOOLOGY,  
 PADMAKRUSHAN KR. VASANTRAO DADA WEL  
 MAHAVIDYALAYA, TARGAD, DIST. GANGLI

**Zoology Certificate Course 2018-19**

**Mark List For Certificate course in "Vermicomposting  
Biotechnology"**

Sr.No	Roll No	Name of The Students	Marks
1.	6099	BANSODE PRADNYA ARUN	47
2.	6100	BODAKE MINAL SHANKAR	45
3.	6101	CHAVAN OMKAR SUNIL	46
4.	6102	CHAVAN VIKAS BAPURAO	47
5.	6103	GHADAGE ARATI RAJENDRA	48
6.	6104	HATITKAR KOMAL JAGANNATH	45
7.	6105	JADHAV UTKARSH NARAYAN	45
8.	6106	JOSHI MAYURI MADHAV	47
9.	6107	MARATHE ASAWARI SATISH	46
10.	6108	MURSAL INZAMAM MAJJID	48
11.	6109	PAGADE JYOTI ANAND	47
12.	6110	PATIL ANJALI SHASHIKRAN	48
13.	6111	PATIL NISHA MAHADEV	45
14.	6112	PATIL PRAJAKTA ANKUSH	46
15.	6113	PATIL PRAJAKTA KASHINATH	48
16.	6114	SHENDAGE ASHWINI ANANDRAO	46
17.	6115	SHENDAGE HEMLATA DHARMENDRA	46
18.	6116	SHINDE KAJAL CHANDRAKANT	45
19.	6117	ZAMBRE ANKITA BHASKAR	48
20.	6297	BHANDARE SANJAY VISHWAS	47
21.	6298	JADHAV VIJAYSHREE NANDKUMAR	48
22.	6299	PATIL PRAMILA PRAKASH	47
23.	6300	SANDE KAJAL DATTATRAY	46
24.	5062	DOMBE AISHWARYA NILKANTH	45



25.	5063	DOUND RUTUJA CHAKRAPANI	46
26.	5064	ERANDOLE SHUBHANGI MAHADEV	46
27.	5065	GAIKWAD POONAM SHANKAR	46
28.	5066	GHUTUGADE SHANKAR HARIBA	45
29.	5067	GIRI KAVITA SANJAY	47
30.	5068	JADHAV BHAGYASHRI BHASKAR	46
31.	5070	KADAM NILESH PANDURANG	48
32.	5071	KADAM SHRADDHA SATISH	47
33.	5072	KAMBLE SHIVANI SANJAY	46
34.	5073	KHUPKAR PRIYANKA LAHU	46
35.	5074	KUKADE VICKY SURESH	45
36.	5075	KULKARNI VAISHNAVI SURESH	47
37.	5076	MADANE KOMAL SARJERAO	46
38.	5077	MALI ASHWINI RAMCHANDRA	46
39.	5079	MALI PRANALI BALASO	47
40.	5080	MALI SAKSHI MILIND	44
41.	5081	MANE AVIRAJ SANJAY	45
42.	5082	MOHITE AMRUTA MANIK	43
43.	5083	MORE OMKAR DINKAR	45
44.	5084	NALAWADE POOJA TANAJI	45
45.	5085	PATIL KIRTI SURESH	47
46.	5086	PATIL RUTUJA TANAJI	47
47.	5087	PATOLE SAYALI RAMCHANDRA	47
48.	5088	PAWAR SHRADDHA BALASAHEB	47
49.	5089	POL BHUSHAN ANIL	48
50.	5090	RANKHAMBE SHUBHAM PRADIP	43
51.	5091	SALUNKHE SNEHAL DINESH	44
52.	5092	SAYYAD ALISHA HAMID	44
53.	5093	SHENDAGE ANKITA TUKARAM	46
54.	5094	SHENDAGE PRATIKSHA ASHOK	47
55.	5095	SHENDAGE RUPALI BALASO	47
56.	5096	SHINDE AJINKYA VASANT	48
57.	5097	SHINDE KALYANI SANJAY	48
58.	5098	THORAWAT ANIKET SANJAY	47
59.	5099	YALMAR DIPALI LALASO	46
60.	5455	KALE KAJAL KISAN	46

61.	5118	MUJAWAR AARJOO ASLAM	46
62.	5248	BAGANE RAMCHANDRA VITTHAL	46
63.	5249	BHANDARE SARIKA ANNASO	46
64.	5250	BODAKE SAKSHI SHANKAR	45
65.	5251	CHAVAN NILAM JALINDAR	45
66.	5252	CHAVAN PRAMILA PANDURANG	45
67.	5253	CHAVAN VIJAY VITTHAL	47
68.	5254	CHOUGULE TEJAL VILAS	46
69.	5255	DABADE ROHIT RAMESH	47
70.	5256	DALAVI AARTI RAJENDRA	47
71.	5257	DESAI AMRUTA MADHUKAR	47
72.	5258	DEVARSHI KAJAL KASHINAATH	46
73.	5259	DHARKAR PRATIBHA DATTATRAY	47
74.	5260	ERANDOLE RUTUJA SHIVAJI	47
75.	5261	GADAVE PRATIKSHA LAXMAN	47
76.	5262	GAIKWAD SOURABH EKNATH	45
77.	5263	GAVADE PALLAVI ATMARAM	45
78.	5264	GAVADE SHITAL ASHOK	45
79.	5265	GHATAGE SNEHAL PANDURANG	45
80.	5266	HAKKE POOJA ANANDRAO	46
81.	5267	HAKKE TEJASWINI BHAGVAT	46
82.	5268	HIVARE RUPALI VITTHAL	45
83.	5269	JADHAV PRADNYA SHASHIKANT	45
84.	5270	JADHAV GAYATRI NANDKUMAR	45
85.	5271	JADHAV GOURI RAGHUNATH	45
86.	5272	JADHAV POOJA SANJAY	46
87.	5273	JADHAV RUTUJA TANAJI	46
88.	5274	JADHAV SONALI BABAN	46
89.	5275	JADHAV SWAPNALI SUBHASH	47
90.	5276	JADHAV SWAPNALI TANAJI	47
91.	5277	JAMADADE MAYURI VISHNU	47
92.	5278	JAMADADE RUTUJA SUBHASH	45
93.	5279	KADAM RUSHIKESH UMESH	45
94.	5280	KAMBLE PALLAVI ANAND	45
95.	5281	KARANDE RUTVIK KUBER	45
96.	5282	KHANDAGALE KAJAL MADHUKAR	47



97.	5283	KHARADE ABHISHEK KHANDERAO	44
98.	5284	KHARADE ROHAN SHANKAR	46
99.	5285	KHARAT RAHUL LAXMAN	48
100.	5286	KORE NAMRATA SHRIKANT	45
101.	5287	LANDAGE DIPALI TANAJI	47
102.	5288	LANDAGE MAYURI POPAT	44
103.	5289	LANDAGE SURAJ VITTHAL	47
104.	5290	LIMGIDE PALLAVI GAJANAN	48
105.	5291	MAINIKAR POONAM ANIL	45
106.	5292	MALI ASHWINI CHANDRAKANT	45
107.	5293	MALI PRANITA KUMAR	45
108.	5294	MALI PRIYA ISHWAR	45
109.	5295	MALI SUHAS SANJAY	45
110.	5296	BEDAGE SUREKHA DAGADU	45
111.	5297	MANE ANKITA ADHIKRAO	45
112.	5298	MANE PRATIBHA MANIK	46
113.	5299	MANE SAMRUDDHI MOHAN	47
114.	5300	MANE SUPRIYA PRATAP	48
115.	5301	MANE TRUPTI VIJAY	47
116.	5302	MANE VARSHA DHONDIRAM	48
117.	5303	MHETRE SARIKA SANJAY	48
118.	5304	MIRAJKAR YOGESH DHANANJAY	48
119.	5305	MOHITE AISHWARYA VINOD	47
120.	5306	MOHITE ASHWINI KUNDLIK	45
121.	5307	MOHITE PRATIK BHARAT	45
122.	5309	MOHITE VEDANTI DILIP	46
123.	5310	MORE ABHIJIT APPASO	47
124.	5312	MULANI MUBIN MAHEBUB	47
125.	5313	NALAWADE RAHUL SANTOSHKUMAR	47

*(Signature)*

HEAD  
DEPARTMENT OF ZOOLOGY,  
PADMAKRISHNAN DR. VASANTRAO DADA KRTI  
MAHARAJA YALAYA, TASSAON, DIST. SANGLI



“Dissemination of Education through Knowledge, Science and Culture”  
-Shikshanmaharshi Dr. BapujiSalunkhe

Shri Swami Vivekanand Shikshan Sanstha's Kolhapur

**PADMABHUSHAN DR. VASANTRAODADA PATIL**  
**MAHAVIDYALAYA TASGAON DIST- SANGLI**  
**416 312 (Maharashtra) Phone No: (02346)250665**  
(Affiliated to Shivaji University, Kolhapur)

**Internal Quality Assurance Cell**  
**Organized**

**SKILL ORIENTED TRAINING PROGRAMME**  
**FOR**  
**NON-TEACHING STAFF**  
**ON**  
**“VERMICOMPOSTING”**

**2020-21**



<b>Event:</b>	<b>Skill Oriented Training Programme for non teaching staff on 'Vermicomposting'</b>
<b>Organizing Department</b>	Department of Zoology and Internal Quality Assurance Cell (IQAC)
<b>Duaration</b>	<b>22<sup>nd</sup> July 2020 to 21<sup>st</sup> August , 2020</b> <b>(30 days)</b>
<b>Participants</b>	<b>14</b>

Padmbhushan Dr.Vasatraodada Patil Mahavidyalaya had organized a 30 days training programme, from 22<sup>nd</sup> July 2020 to 21<sup>st</sup> August , 2020 on 'Vermicomposting' to cover a total duration of 200 hours. The said training programme imparted theory as well as practical (hand-on) exposure on vermicomposting and management of organic wastes in agriculture for productivity improvement and livelihood security.

About 14 trainees (Non-teaching staff), from our college participated in the programme. Various subject matter experts from the institute covered several important aspects on relevance of vermicompost in present scenario, species diversity, biology of earthworms and their role in bio transformation of organic waste, process of earthworms inoculation and factors influencing decomposition process, water and nutrient management, care and maintenance during vermicomposting, sieving and packaging of vermicompost and relevant safety practices associated with compost making and use. All the necessary steps involved in preparation of vermicompost such as pre-treatment of organic waste, filling of bedding materials, inoculating earthworms, piling of vermicompost pit, watering, harvesting and vermiwash preparation were

practiced by the trainees themselves. Trainees were also exposed to hands on training at vermicompost unit at college campus.

The aim of training was to develop potential knowledge and skill of the trainees to carry out defined task and responsibilities related to vermicomposting. “Training is the process of acquiring specific skills to perform a job better” was main motto.. All trainees will be getting certificate. During the programme, the participants were provided with the hands-on-training of scientific vermicompost production along with the exposure to the various operations of the vermi-compost production process

. Syllabus

## **UNIT 1**

1. Introduction to vermiculture, definition, classification, history, economic important, their value in maintenance of soil structure.
2. Its role in bio transformation of the residues generated by human activity and production of organic fertilizers.
3. Choosing the right worm. Useful species of earthworms. Local species of earthworms. Exotic species of earthworms.
4. Biology of Pheretimaposthuma. a) Taxonomy Anatomy, physiology and reproduction. b) Vital cycle of Pheretimaposthuma: alimentation, fecundity, annual reproducer potential.

## **UNIT 2**

5. Limit factors (gases, diet, humidity, temperature, PH , light, and climatic factors).
6. Physio- chemical parameters of vermicompost
7. Different Methods of Vermicomposting: Small- and large-scale Bed method, Pit method Small Scale Earthworm farming for home gardens - Earthworm compost for home gardens
8. Conventional commercial composting - Earthworm Composting larger scale
9. Pest and diseases of earthworms. Frequent problems. How to prevent and fix them. Complementary activities of auto evaluation.



10. Nutritional Composition of Vermicompost for plants, comparison with other fertilizer.

### **UNIT 3**

11. Earthworm Farming (Vermiculture), Extraction (harvest), vermicomposting harvest and processing. Earthworm Farming (Vermiculture), Extraction (harvest), vermicomposting harvest and processing.

12. Vermiwash

13. Small Scale Earthworm farming for home gardens

14. Conventional commercial composting 15. Earthworm Farming (Vermiculture), Extraction (harvest), vermicomposting harvest and processing. 16. Harvesting, packaging, transport and storage of Vermicompost and separation

### **PRACTICAL**

- Scientific classification of Earthworm Study of external morphology of Earthworm
- Study of habit and habitat of Earthworm
- Study of Digestive system of earthworm Study of Reproduction of earthworm Vermicomposting unit Pit method
- Establishment of vermicomposting unit Bed method Establishment of vermiwash unit Vermicompost production, harvesting and packaging.
- Greenhouse media.



Bed preparation for vermicompost





Adding water for maintaining proper humidity.

# शेतकऱ्यांनी गांडूळखताची निर्मिती करावी

प्राचार्य डॉ. हुजरे : तासगाव महाविद्यालयात गांडूळखत निर्मिती प्रकल्प सुरू

तासगाव : पुढारी वृत्तसेवा

बदलत्या वातावरणाचा अभ्यास करून रासायनिक खतांच्या वापराला निबंध घातला पाहिजे. सेंद्रिय पद्धतीने शेती केली पाहिजे. त्यासाठी प्रत्येक शेतकऱ्याने स्वतः गांडूळ खत निर्माण करावे, असे प्रतिपादन प्राचार्य डॉ. मिलिंद हुजरे यांनी केले.

ते तासगाव येथील पद्मभूषण डॉ. वसंतरावदादा पाटील महाविद्यालयातील प्राणीशास्त्र विभागाने सुरू केलेल्या गांडूळखत प्रकल्पाच्या उद्घाटनप्रसंगी बोलत होते.

डॉ. हुजरे म्हणाले, प्राणी शास्त्र विभागाने सुरू केलेला हा एक स्तुत्य उपक्रम आहे. महाविद्यालयाच्या परिसरातील झाडांची पाने व कचरा



तासगाव : येथे पद्मभूषण डॉ. वसंतरावदादा पाटील महाविद्यालयात प्राणी शास्त्र विभागाने सुरू केलेल्या गांडूळखत प्रकल्पाची पाहणी करताना प्राचार्य डॉ. मिलिंद हुजरे. शेजारी अन्य शिक्षक.

यापासून उत्कृष्ट गांडूळखत होऊ शकते हे त्यांनी दाखवून दिले आहे. या खताचे वाटप तासगाव परिसरातील गरजू शेतकऱ्यांना केले जाणार आहे. तसेच महाविद्यालयाच्या बागेसाठी या

खताचा उपयोग केला जाणार आहे.

परिसरातील शेतकरी आणि महाविद्यालयातील सेवक वर्ग यांना प्राणी शास्त्र विभागामार्फत गांडूळखत निर्मितीचे मार्गदर्शन केले जाणार आहे.





‘Dissemination of Education through Knowledge, Science and Culture’-Shikshanmaharshi Dr. Bapuji Salunkhe

**Shri Swami Vivekanand Shikshan Sanstha, Kolhapur’s**

**PADMABHUSHAN Dr. VASANTRAODADA PATIL  
MAHAVIDYALAYA, TASGAON  
Tal. Tasgaon, Dist.: Sangli.**

**DEPARTMET OF COMMERCE**

*Report on*

**TRAINING PROGRAM ON AURVEDIK**

**SUGANDHI UTHANE**



<b>Title of Programme</b>	<b>Training Program on Aurvedik Sugandhi Uthane</b>
<b>Organizing Department</b>	<b>DEPARTMENT OF COMMERCE</b>
<b>Collaboration with</b>	-
<b>Date</b>	14 <sup>th</sup> October, 2019.
<b>Venue</b>	ROOM NO. 28
<b>No. of Participants</b>	21, Male: 07, Female: 09 Teachers : Male: 02, Female: 03

The use of ubtan powder for cleansing and bathing is being mentioned in the treasures of ayurveda since ages. During this festive season of Diwali having the bath with ubtan is considered to be auspicious and termed as “Abhyang Snan”. ABHYANG Ayurvedic ubtan powder is used to remove dirt, greasiness and dead cells and protect the skin from skin ailments.

In order to create interest in entrepreneurship among the students and considering the importance of Aurvedik Sugandhi Uthane in Diwali Festival, the Commerce Department conducted a training program on Aurvedik Sugandhi Uthane. It showed the students the actual process of making Sugandhi Uthane. The students actually sold the created Aurvedik Sugandhi Uthane in the society.

आयुर्वेदिक सुगंधी उठणे साहित्य	
मसूर डाळ पीठ	नागरमोथा
आवळा पावडर	वाळा
आंबेहळद	जटामासी
वेखंड	सुगंधी कचोरा
बावची	मरवा
अनंतमूळ	घुलाब कळी पावडर





*Inauguration Ceremony of Aurvedik Sugandhi Uthane by The Prin. Dr. Milind Hujare.*






*All Participants With Principal Dr. Milind Hujare.*

**Dr. A. G. Sonawale**  
Head, Department of Commerce

## Participants Students List 2019-20

<b>Class: B.Com. II</b>		
<b>Sr. No</b>	<b>GENDER</b>	<b>NAME OF THE STUDENT</b>
1	SHRI	BANASAVADE DATTATRAY ASHOK
2	SHRI	RENDALKAR VIJAY YUVRAJ
3	SHRI	INGAWALE PRATIK DIPAK
4	SHRI	SUTAR SUSHANT SHIVAJI
5	SHRI	PAWAR NILESH NAMDEV
6	SHRI	SAWANT VAIBHAV SHASHIKANT
7	SHRI	WAGH INDRAJIT SUDHAKAR
8	MISS	KOKANE PALLAVI RAVINDRA
9	MISS	BODARE PRAJAKTA UTTAM
10	MISS	CHAVAN POOJA BAPURAO
11	MISS	GAIKWAD RUTUJA JAYANT
12	MISS	GURAV ASHWINI PANDIT
13	MISS	PATIL SNEHAL GOVIND
14	MISS	HINGMIRE SHRADDHA SUNIL
15	MISS	KAMBLE NISHA ANANDA
16	MISS	KARMARKAR DIVYA DAMODAR
<b>Teachers Name</b>		
17		DR. SONAWALE A.G.
18		MR. PATIL G.R.
19		MISS. CHAVAN P.C.
20		MISS. SALUNKHE P.B.
21		MISS. PATIL S.S.

 <b>Dr. Alka Inamdar</b> IQAC & NAAC Coordinator <b>IQAC Co-Ordinator,</b> P.D.V.P. Mahavidyalaya, Tasgaon.	 <b>Dr. Anmol Sonawale</b> HOD, Commerce <b>HEAD</b> Department of Commerce P.D.V.P.College, Tasgaon.	 <b>Dr. Milind Hojare</b> <b>Principal</b> Padrnabhushan Dr. Vasantraodada Patil Mahavidyalaya, Tasgaon. (Sangli)
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**A**  
**Major Project On**

**“BLOOD BANK AND DONOR MANAGEMENT  
SYSTEM”**

**SUBMITTED  
TO  
“SHIVAJI UNIVERSITY, KOLHAPUR”**

**IN PARTIAL FULFILMENT OF THE REQUIREMENT  
OF THE DEGREE BACHELOR OF SCIENCE (B.Sc.III)  
SEMISTER –VI**

**SUBMITTED BY  
Ms. Pradnya Vasant Patil.  
Ms. Vaishnavi Satish Patil.**

**UNDER THE GUIDANCE OF  
Miss.S.V.Patil.**

**THROUGH  
THE PRINCIPAL  
PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAY,  
TASGAON  
2021-22**



**Shri Swami Vivekanand Shikshan Santha's**



**PADMABHUSHAN DR.VASANTRAODADA PATIL MAHAVIDYALAYA,**

**TASGAON.**

**Department of Computer Science**

## **CERTIFICATE**

This is to certify that

**Ms.Pradnya Vasant Patil.**

**Ms. Vaishnavi Satish Patil.**

Have completed the necessary project on “**BLOOD BANK AND DONOR MANAGEMENT SYSTEM**”, in a satisfactory manner as a partial fulfillment of the requirement of the **B.Sc.III, SEM-VI of Shivaji University Kolhapur** in academic year 2021-2022

We therefore approve the same and wish them all the best in their future career and bright success at every step in their life.

**Date :**

**Place : Tasgaon**

**Examiner**

**Head of Department**

**Principal**

**(Prof. V.T.Kumbhar)**

**(Dr. Milind Hujre)**



# **Shri Swami VivekanandShikshanSantha's**

**PADMABHUSHAN DR.VASANTRAODADA PATIL MAHAVIDYALAYA,  
TASGAON**

## **GUIDE CERTIFICATE**

This is to certify that,

**Ms.PradnyaVasant Patil.**

**Ms.VaishnaviSatish Patil.**

Have completed the necessary project on “**BLOOD BANK AND DONOR MANAGEMENT SYSTEM**”, in a satisfactory manner as a partial fulfillment of the requirement of the **B.Sc.III, SEM-VI** of Shivaji University, Kolhapur in academic year 2021-2022

We therefore approve the same and wish them all the best in their future career and bright success at every step in their life.

**Date :**

**Place :Tasgaon**

**Guide**

**(Miss.S.V.Patil.)**

# DECLARATION

To,  
The Principal,  
Padmabhushan Dr. Vasantodada Patil Mahavidyalaya, Tasgaon,  
Sangli.

Respected Sir/Madam,

We hereby declare that this report is original in all aspects and the facts prescribed there are true and not copied from any other project report.

If proved otherwise, we will solely be responsible for the consequences arising there from.

**Date:**

**Place: Tasgaon**

**Signature**

Ms. Pradnya Vasant Patil.

Ms. Vaishnavi Satish Patil.

B.Sc III (Sem - VI)

# ACKNOWLEDGEMENT

This is a great opportunity to acknowledge and to thank all those persons without whose support and help this project would have been impossible. We would like to add a few heartfelt words for the people who were part of this project in numerous ways.

We would like to thank to our project guide **Miss S.V.Patil**, for their indefatigable guidance, valuable suggestion, moral support, constant encouragement and contribution of time for the successful completion of project work. We are very grateful to all teaching staff also for providing all the facilities needed during the project development. At the outset, we sincerely thank all faculty members of our college for their extra effort to make our session online inspire of all ideas.

The words are not enough to express our thanks to the **Miss S.V.Patil**, Head of **B.Sc (Computer Science)** Department Padmabhushan Dr. Vasantrao Dada Patil Mahavidyalaya, Tasgaon for this constant motivation and encouragement during the investigation. We record our hearty and grateful thanks to all our friends for giving us a valuable guidance, information about this system. Last but not the least, we would like to acknowledge the ongoing support of our parents and family members, whose patience and encouragement during these long days and night have been paramount in making this project reality.

Thanking You,

**Ms. Pradnya Vasant Patil.**

**Ms. Vaishnavi Satish Patil.**



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## **1. Introduction To Project**

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ERD

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Output Design

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Conclusion

Future enhancement

# **UNIT 1**

## **INTRODUCTION TO PROJECT**

# 1.1 INTRODUCTION

- The project blood bank management system is known to be a pilot project that is designed for the blood bank to gather blood from various sources and distribute it to the needy people who have high requirements for it.
- The software is designed to handle the daily transaction of the blood bank and search the details when required.
- It also helps to register the details of donors, blood collection details as well as blood issued reports.
- The software application is designed in such manner that it can suit the needs of the blood bank requirements in the course of future.
- The current system is manual and it is time-consuming. It is also cost-ineffective, and the average return is low and diminishing.
- Blood bank and donor management system is a web based application on python language and Sqlite database.



## **1.2 EXISTING SYSTEM**

- The operation of the blood bank still now is maintained in the manual system.
- The operation is tedious , time-consuming ,and space – consuming.
- It creates rooms for a errors as the data is entered manually by the persons.
- It includes the risk of the documents being lost over years and maintenance.
- The data recorded during testing or while acquiring the details of different aspects of blood bank management system is not so accurate and precise.
- Maintaining the stock of blood and daily transaction without computerization also poses a challenge.

## **1.3 NEED & SCOPE OF SYSTEM**

### **➤ Needs of the system**

- There is always a need of a system that will help in blood bank to manage information of donors of a corresponding blood group.
- User view all blood bank information is location wise.
- Donor easily donate the blood near blood bank location.
- Patient easily request for blood near blood bank location.
- In this system also supported inquiry form for user.
- Greater efficiency.
- Better service.
- User friendliness and interactive.
- Reduce the effort.
- Save time.

## ➤ Scope of the System

This system is not only for business purpose but also for social services .So the scopes can be:

- This system can be used for maintaining all the process and activities of BBMS.
- Avoid accumulating blood from individuals is who might also be unsuitable due to the threat of health factors that might also harm the patients.
- Through the recordings of the donors and blood details , this system can provide and efficient donor and blood stock management functions to the blood bank.
- This system can be used to manage and control the sales, purchase and stocks of blood.
- In the development of the system, there shall be the spaces for future modification.



## 1.4 ORGANIZATION PROFILE

The “**Blood Bank And Donor Management System**” is as we all know by now, blood donation has a lot of benefits. Why a person requires blood has various reasons. It may be an illness or also an accident, nonetheless, it is important. The blood that we donate helps a person in need. It enhances their health condition and makes them overcome their critical situation.

In other words, blood donation does not simply help that specific person but also contributes a responsible gesture towards society. Moreover, it also enhances the health of the donor. As the cell depletion allows a way for production, not new cells that freshen our body system.

Furthermore, it also revitalizes our body for better health. Next up, a single blood donation helps at least 3 people in need. Thus, imagine how one donation can make a blood donation refers to a practice where people donate their blood to people so it helps them with their health problems. Blood is one of the most essential fluids of our body that helps in the smooth functioning of our body. If the body loses blood in excessive amounts, people get deadly diseases and even die.

Thus, we see how blood donation is literally life-saving which helps people. It is also a sign of humanity that unites people irrespective of caste, creed, religion and more.

## 1.5 PROJECTPROFILE

<b>Project Name</b>	<b>“Blood Bank And Donor Management System”</b>
<b>Objective</b>	This software help to easy management of records such as management of blood donors, blood groups and also helpful for seekers to searching donor.
<b>Platform</b>	Website (Web Based application)
<b>Front End</b>	
<b>Layouting Language</b>	PHP
<b>Designing Language</b>	CSS, CSS3
<b>Supporting Language</b>	JAVASCRIPT, jQuery, AJAX
<b>Framework</b>	W3.CSS (Framework)
<b>Back End</b>	
<b>Server-sideLanguage</b>	PHP
<b>Server Side Database</b>	MySQL
<b>Internal Guidance</b>	Miss.S.V.Patil.

**UNIT 2**  
**PROPOSED SYSTEM**



## **2.1 OBJECTIVE**

**This software help to easy management of records such as management of blood donors, blood groups and also helpful for seekers to searching donor.**

- **The Main Objectives are behind this project:-**

1. System makes the overall project management much easier and flexible.
2. Upload the latest updates ,allows user to see the alerts by clicking the URL.
3. It provides high level of security with different level of authentication.
4. User friendliness provided in the application with various control.
5. To ensure hospital to have good supply or inventories of blood bags.
6. To check the availability of blood bags anytime.
7. To manage the information of its blood donor.
8. Function of check if the person donate blood for the last 3 months.

## 2.2FUNCTIONAL SPECIFICATION

- Login of admin.
- Blood donor.
- Change the login password of admin.
- Register the donor by himself.
- Register the donor by system admin.
- Login of the donor.
- Change the login password of donor .
- Change personal, contact details by the donor himself.
- Change personal, contact details by the admin.
- Withdraw registration details by the donor.
- Withdraw registration details by admin.
- Send blood donation details to the relevant donors.
- Send blood testing details.

### Modules

- ❖ Login modules
- ❖ Admin
- ❖ Blood bank
- ❖ Donor
- ❖ Patient

#### Login modules

- Admin
  - Manage registration for user .
  - Manage blood bank information like update ,de

- Manage donor request for donor.
- Manage request for needy people.
- Manage inquiry form for appropriate reply.
- Manage feedback for appropriate reply.

- **Blood Bank**

- \* Blood bank information view /update.
- \* View donor information.
- \* Manage patient blood request.

- **Donor**

- \*Manage donor information(profile).
- \*Add new donation for blood.

- **Patient**

- Manage patient information profile
- Give the request to patient for blood.

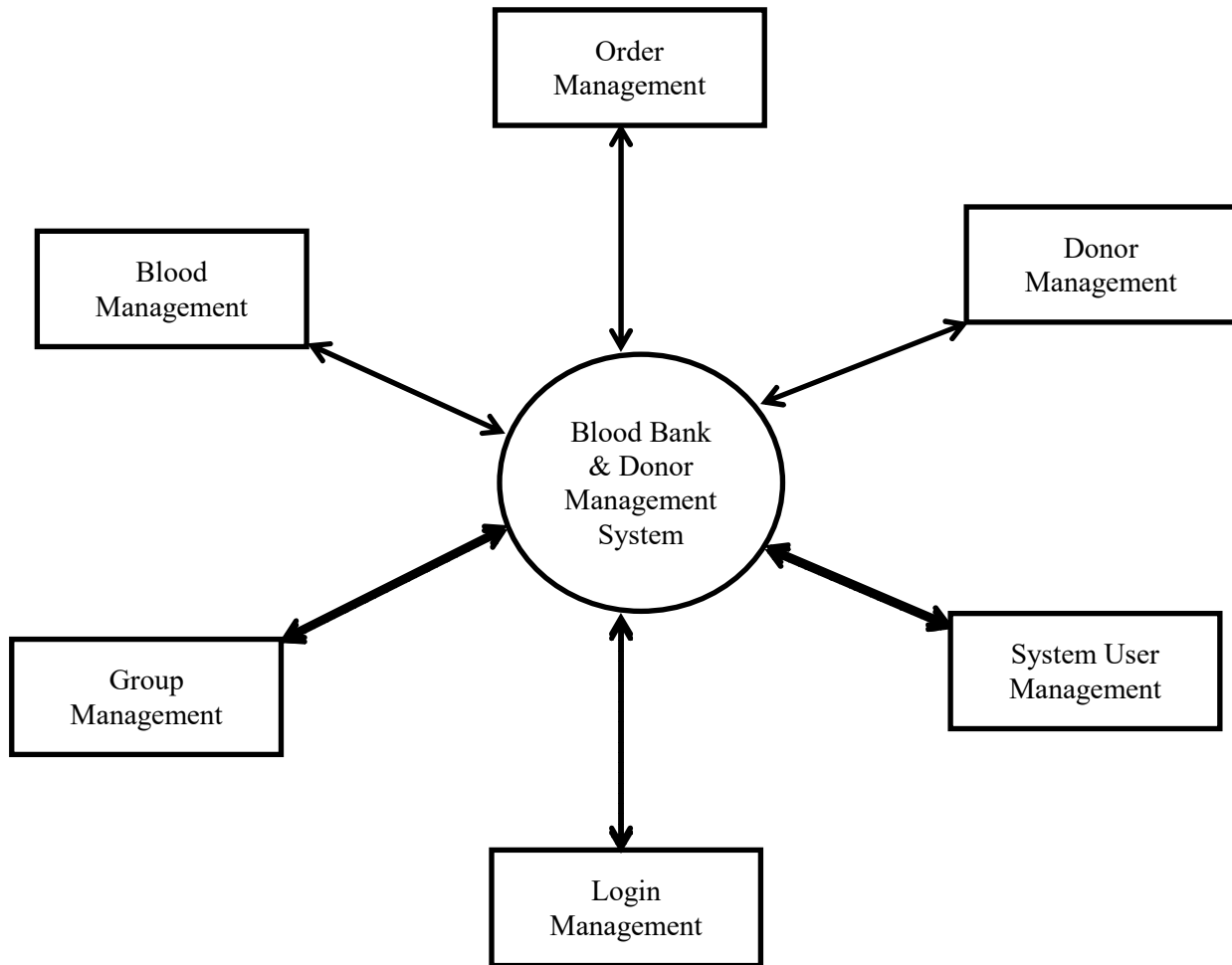


## **UNIT 3**

# **SYSTEM DIAGRAMS**

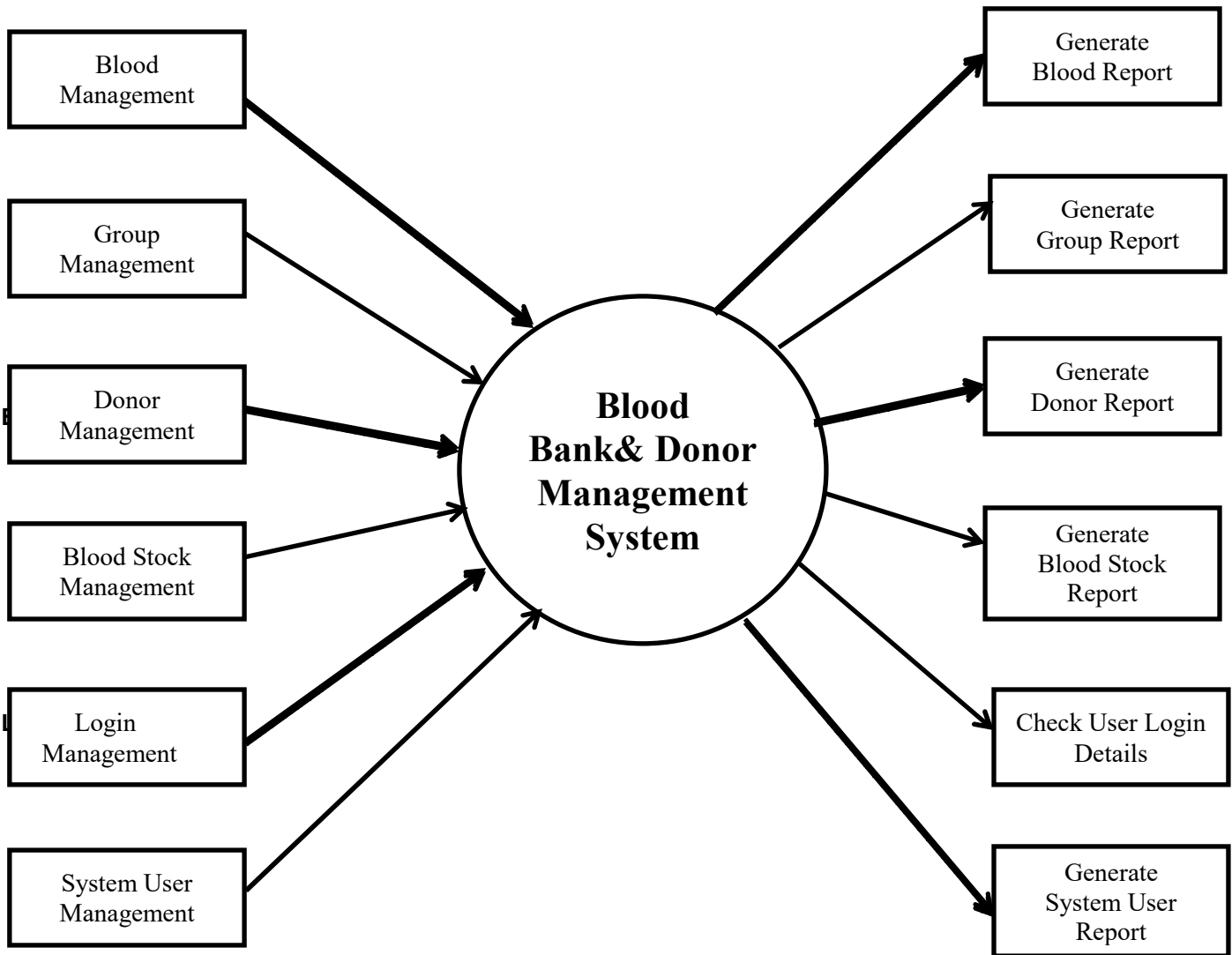
# 3.1 DATA FLOWDIAGRAM

## ZERO LEVEL DFD



**Zero Level DFD – Blood Bank And Donor Management System**

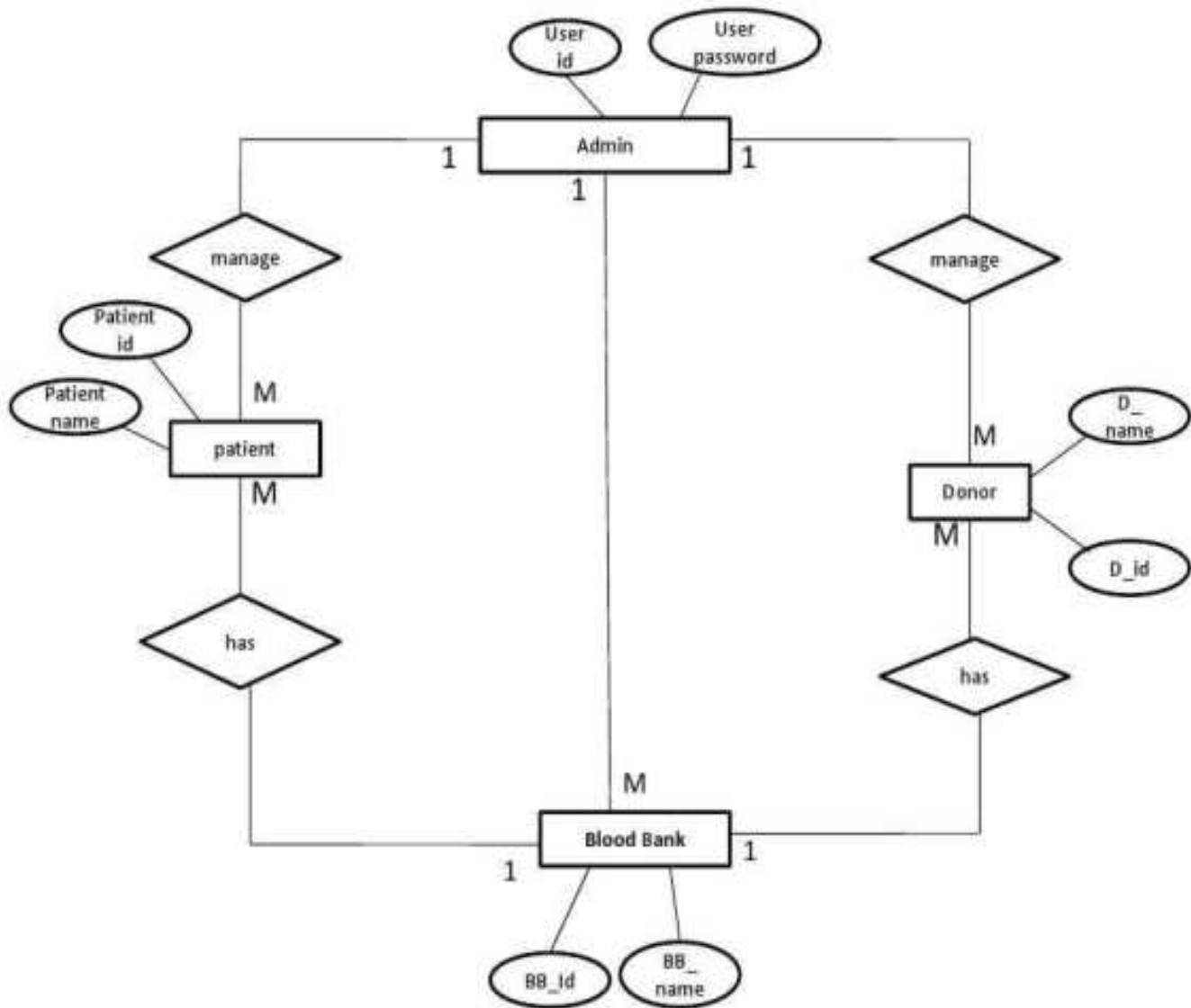
# FIRST LEVEL DFD



First Level DFD – Blood Bank And Donor Management System



## 3.2 ERD



## 3.3 SOFTWARE REQUIREMENT

### Client side:

Web browser	Google Chrome or any compatible browser
Operating System	Windows or any equivalent operating system

### Server Side:

Local Web server Software	Xampp (Apache& MySQL)
Operating system	Windows Based Operating System

## 3.4 HARDWARE REQUIREMENT

RAM	2 GB or above
HardDisk	40GB or above
Processor	Pentium IV 2.4GHz



**UNIT4**  
**SYSTEM DESIGN**

# 4.1 DATABASE DESIGN

## DataBase Tables

The screenshot shows the phpMyAdmin interface for a database named 'bbdms'. The left sidebar displays a tree view of the database structure, including tables like 'admin', 'tblblooddonors', 'tblbloodgroup', 'tblcontactusinfo', 'tblcontactusquery', and 'tblpages'. The main panel shows a table structure overview with the following data:

Table	Action	Rows	Type	Collation	Size	Overhead	
admin	[Browse] [Structure] [Search] [Insert] [Empty] [Drop]	1	InnoDB	utf8mb4_general_ci	16.8 K	128	
tblblooddonors	[Browse] [Structure] [Search] [Insert] [Empty] [Drop]	19	InnoDB	utf8mb4_general_ci	11.8 K	128	
tblbloodgroup	[Browse] [Structure] [Search] [Insert] [Empty] [Drop]	7	InnoDB	utf8mb4_general_ci	10.8 K	128	
tblcontactusinfo	[Browse] [Structure] [Search] [Insert] [Empty] [Drop]	1	InnoDB	utf8mb4_general_ci	11.8 K	128	
tblcontactusquery	[Browse] [Structure] [Search] [Insert] [Empty] [Drop]	8	InnoDB	utf8mb4_general_ci	10.8 K	128	
tblpages	[Browse] [Structure] [Search] [Insert] [Empty] [Drop]	2	MyISAM	utf8mb4_general_ci	6.1 K	128	
6 tables		Sum		InnoDB	utf8mb4_general_ci	80.1 K	818

Below the table structure, there is a 'Create table' section with a 'Name' field and a 'Number of columns' field set to 4. The interface also includes a search bar, a 'Check all' checkbox, and a 'Go' button.

# Admin

The screenshot shows the phpMyAdmin interface in a web browser. The browser tabs include 'phpMyAdmin', 'Modem Business - Start Bootstrap', and 'localhost / 127.0.0.1 / (admin)'. The address bar shows 'localhost/phpmyadmin/index.php?route=/database/structure&server=1&db=bbdns'. The interface displays the 'tbltbltbl' table structure for the 'bbdns' database. The table has 4 columns: 'tbltbltbl\_id', 'tbltbltbl\_name', 'tbltbltbl\_email', and 'tbltbltbl\_password'. The table is currently empty. Below the table structure, there is a 'Create table' button and a form to create a new table with 4 columns.

Table	Action	Rows	Type	Collation	Size	Charset
tbltbltbl_id	Structure	1	INT(11)	utf8_general_ci	36.8 K	utf8
tbltbltbl_name	Structure	0	TEXT	utf8_general_ci	36.8 K	utf8
tbltbltbl_email	Structure	1	TEXT	utf8_general_ci	36.8 K	utf8
tbltbltbl_password	Structure	0	TEXT	utf8_general_ci	36.8 K	utf8
tbltbltbl	Sum	21	tbltbltbl	utf8_general_ci	36.8 K	utf8



# Blood Donor

The screenshot shows a web browser window with the URL `localhost/phpmyadmin/index.php?route=/sql&server=1&db=bbdms&table=tblblooddonors&pos=0`. The PHPMyAdmin interface displays a table with the following data:

	Full Name	Mobile Number	Email	Gender	Age	Blood Group	Address	Message	Posting Date	Status
<input type="checkbox"/>	Shella Anja Ari	994512012	Ana22@gmail.com	Female	45	B+	AP-Nimra Tel-Tegayon Dist-Sangli		2022-01-08 12:59:42	1
<input type="checkbox"/>	Bekkal Purni Diantari	710829000	ggh4@gmail.com	Female	19	O+	AP-Kayon Tel-Kayon Dist-Sangli		2022-01-03 10:05:03	1
<input type="checkbox"/>	Devi Ramas Datasah	324848200	Devi72@gmail.com	Male	75	AB-	AP-Kanta Piri Tel-Wing Dist-Sangli		2022-01-04 02:54:48	1
<input type="checkbox"/>	Mel Saris Hastuti	881218402	mel8@gmail.com	Female	23	O+	AP-Nal Dal-Tegayon Tel-Tegayon Dist-Sangli		2022-01-08 10:02:08	1
<input type="checkbox"/>	Kuntha Vira Roesah	99288388	Kuntha24@gmail.com	Female	58	AB-	AP-Pala Tel-Pala Dist-Sangli		2022-01-08 03:48:48	1
<input type="checkbox"/>	Pura Sri Prapti	99288488	purasri11@gmail.com	Female	31	B+	AP-Sang Tel-Wing Dist-Sangli		2022-01-07 04:00:02	1
<input type="checkbox"/>	Chayn Dharyakhal Saray	833291787	dharyak@gmail.com	Male	27	B-	AP-Intalany Tel-Halonga Dist-Kotawaru	My blood group is B- i want to donate my blood	2022-01-08 11:18:08	1
<input type="checkbox"/>	Jathin Simsha Chandrasari	99288600	jathin1@gmail.com	Female	25	A-	AP-Kantur Tel-Mu Dist-Sangli	Can i donate blood?	2022-01-07 00:33:38	1
<input type="checkbox"/>	Pati Prady Pandurang	992248108	pprady14@gmail.com	Male	25	B+	AP-Hatur Tel-Tegayon Dist-Sangli	I am able to donate blood	2022-01-04 01:30:37	1
<input type="checkbox"/>	Sewati Purni Ari	827288172	wika217@gmail.com	Female	22	A+	AP-Hura Tel-Intalany Dist-Sangli	we want to donate blood to needy people	2022-01-10 03:30:00	1

# Blood Group

The screenshot shows the phpMyAdmin interface for a database named 'bbdms'. The selected table is 'tblbloodgroup'. The SQL query executed is 'SELECT \* FROM `tblbloodgroup`'. The results show 7 rows of data, with columns 'id', 'BloodGroup', and 'PostingDate'. The table has 25 rows in total. The interface includes a sidebar with a database tree, a top navigation bar with options like 'Browse', 'Structure', 'SQL', 'Search', 'Insert', 'Export', 'Import', 'Privileges', 'Operations', 'Tracking', and 'Triggers', and a bottom taskbar with various application icons.

Showing rows 0 - 6 (7 total. Query took 0.0010 seconds.)

```
SELECT * FROM `tblbloodgroup`
```

Options

	id	BloodGroup	PostingDate
<input type="checkbox"/>	7	A+	2022-01-06 12:22:51
<input type="checkbox"/>	8	B+	2022-01-06 12:22:50
<input type="checkbox"/>	9	AB+	2022-01-06 12:23:06
<input type="checkbox"/>	10	O+	2022-01-06 12:23:10
<input type="checkbox"/>	11	A-	2022-01-06 12:23:21
<input type="checkbox"/>	13	B-	2022-01-06 12:23:28
<input type="checkbox"/>	15	AB-	2022-01-06 12:23:35

Query results operations

# Contact Info

The screenshot shows the phpMyAdmin interface with a SQL query executed. The query is `SELECT * FROM `tblcontactusinfo``. The result set contains one row with the following data:

ID	Address	EmailId	ContactNo
1	AP - Tasejon Tal - Tasejon Dist - Bangl	ppradny510@gmail.com	800548051

The interface also shows the 'Query results operations' section with buttons for Print, Copy to clipboard, Export, Display chart, and Create view. Below that is a 'Bookmark this SQL query' section with a label input field and a checkbox for 'Let every user access this bookmark'. The Windows taskbar at the bottom shows the date as 08-01-2022 and the time as 13:51.



## 4.2 INPUT DESIGN

### Welcome Screen



# About Us



## BloodBank & Donor Management System

[About](#) [Why Become Donor](#) [Become a Donor](#) [Search Blood](#) [Contact us](#)

## About Us

[Home](#) / [About Us](#)

Blood donation and transfusion service is an indispensable part of contemporary medicine and health care. Blood management has been recognized as a challenging task because of life threatening nature of blood products entails the punctilious administration due to its perishable nature and required timely processing and it also saves the life.

### Features :-

1. Blood collection management.
2. Stock management.
3. Blood issue management.

BloodBank & Donor Management System 2022



# Why Become Donor

The screenshot shows a web browser window with the following content:

- Browser tabs: "BDM & Admin Dashboard", "Qualtrix (127027 / 18899) |", "Modern Business - Start Bootstrap |".
- Address bar: "localhost/BloodBank-and-Donor-Management-System/BloodBank%20Dev%20Donor%20Management%20System/why-become-donor".
- Page Header: "BloodBank & Donor Management System" | "About: Why Become Donor" | "Become A Donor" | "Search Blood" | "Contact Us".
- Section Header: "Why Become Donor".
- Breadcrumbs: "Home / Why Become Donor".
- Text: "Donating blood regularly has proved beneficial not only for the recipient but also the donor. It is helpful for the vital organs, and it reduces risk for chronic diseases such as a cancer and stroke."
- Text: "For certain treatments like chemotherapy, Blood is required on a daily basis, whereas victims of accident may require up to 100 units of blood transfusion."
- List-Group:
  1. Reduce risk of heart attacks and liver ailment.
  2. Lower the risk of cancer.
  3. New blood cells.
  4. Reduce the risk of Hemochromatosis.
  5. Maintain weight.
  6. Helps prevent premature aging.
  7. Speed up healing process.
  8. Lower cholesterol level.
  9. Free medical checkups.
  10. Live a longer life.
  11. Blood storage.
  12. Save lives.
- Page Footer: "BloodBank & Donor Management System 2022".
- Windows Taskbar: Shows search bar, task view, and various application icons. System tray shows date and time: "13:22 10-21-2022".



# Become A Donor

BBDMS | Admin Dashboard | localhost / 127.0.0.1 / bbdms / | BloodBank & Donor Management | +

localhost/Bloodbank-and-Donor-Management-System/Bloodbank%20and%20Donor%20Management%20system/bbdms/become-donor.php

BloodBank & Donor Management System | About | Why become Donor | Become a Donor | Search Blood | Contact us

## Become a Donor

[Home](#) / [Become a Donor](#)

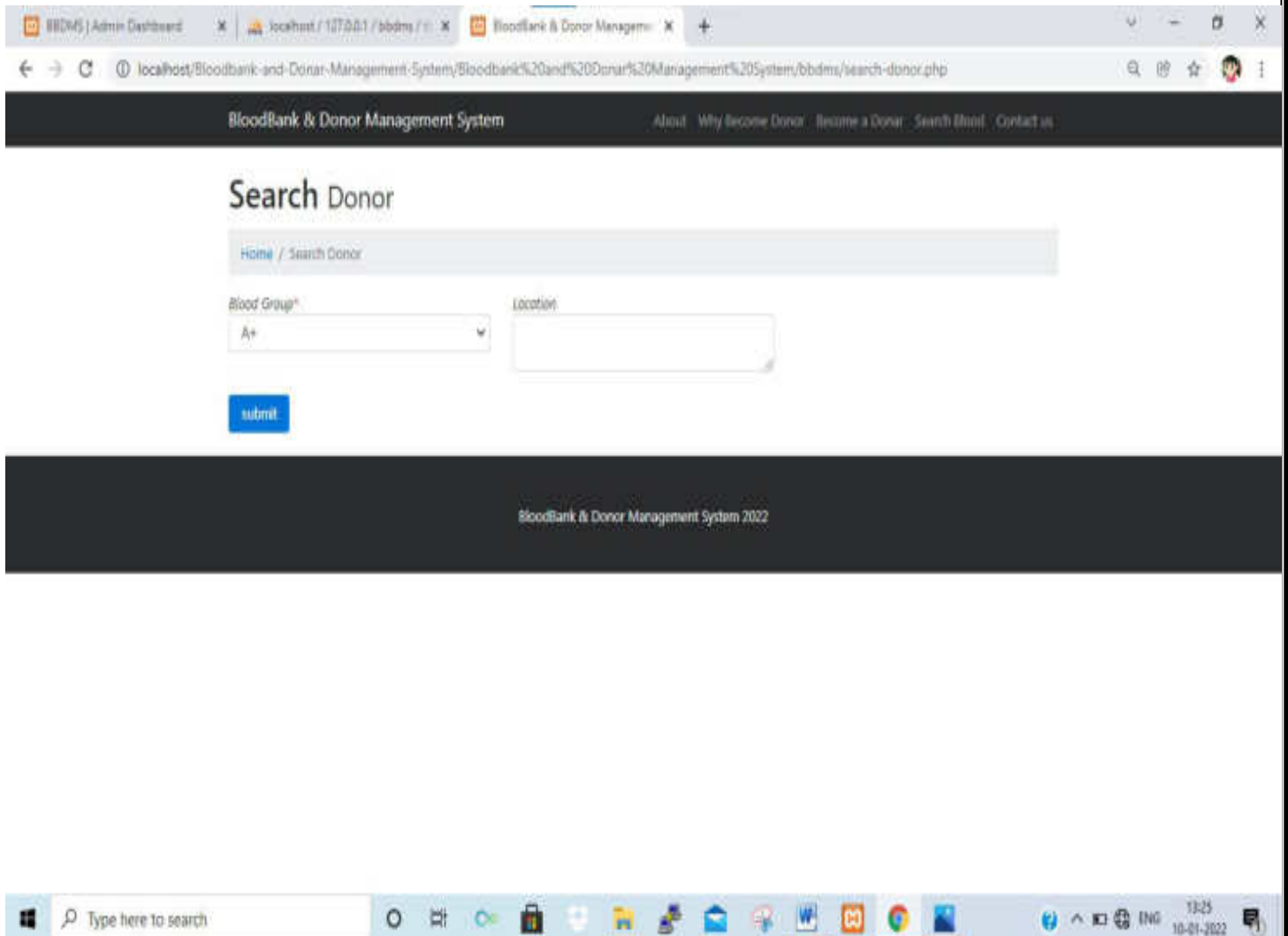
Full Name*	Mobile Number*	Email id*
<input type="text"/>	<input type="text"/>	<input type="text"/>
Age*	Gender*	Blood Group*
<input type="text"/>	<input type="text" value="Select"/>	<input type="text" value="A+"/>
Address	Message*	
<input type="text"/>	<input type="text"/>	
<input type="submit" value="submit"/>		

Bloodbank & Donor Management System 2022

Type here to search

Taskbar icons: File Explorer, Mail, Microsoft Edge, Chrome, Word, PowerPoint, Outlook, Teams, OneDrive, Settings, Task View, Start, Search, Network, Volume, Power, ENG, 13:22, 10-01-2022

# SearchDonor



# Contact Us

The screenshot displays a web browser window with the following elements:

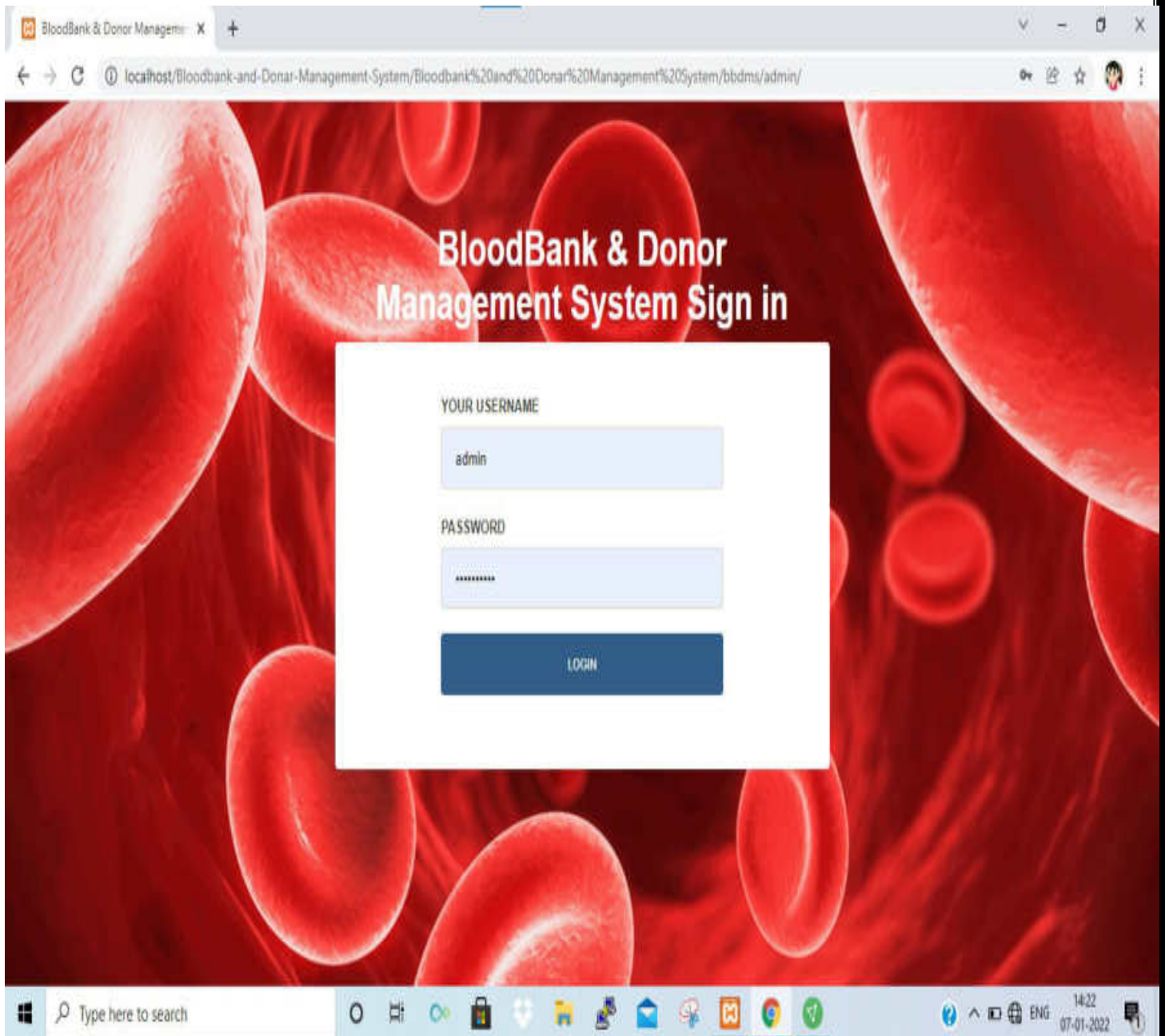
- Browser Tabs:** BBDMS | Admin Dashboard, localhost / 127.0.0.1 / bbdms / |, Modern Business - Start Bootstr...
- Address Bar:** localhost/Bloodbank-and-Donar-Management-System/Bloodbank%20and%20Donar%20Management%20System/bbdms/contact.php
- Navigation Bar:** BloodBank & Donor Management System | About | Why Become Donor | Become a Donor | Search Blood | Contact us
- Breadcrumb:** Home / Contact
- Send us a Message:** A form with fields for Full Name, Phone Number, Email Address, and Message, followed by a Send Message button.
- Contact Details:** A/P - Tagaon Tal - Tagaon Dist - Sangli, P- 4080546051, E- conardhyal10@gmail.com
- Footer:** BloodBank & Donor Management System 2022

The screenshot shows a Windows taskbar with the following elements:

- Search Bar:** Type here to search
- Taskbar Icons:** Various application icons including File Explorer, Edge, and others.
- System Tray:** Includes icons for network, volume, and language (ENG), along with the date and time (13:29, 10-01-2022).



# Admin Login



# Dashboard

BloodBank & Donor Management System

Account

## Dashboard

7 LISTED BLOOD GROUPS FULL DETAIL +	10 REGISTERED BLOOD GROUP FULL DETAIL +	0 TOTAL QUERIES FULL DETAIL +
---	---	-------------------------------------

Windows taskbar: Type here to search, 12:29, 07-01-2022

# Add BloodGroup

The screenshot shows a web browser window with the following details:

- Browser Tab:** BBDMS | Admin add-bloodgroup X
- Address Bar:** localhost/Bloodbank-and-Donor-Management-System/Bloodbank%20and%20Donar%20Management%20System/bbdms/admin/add-bloodgroup.php
- Page Title:** BloodBank & Donor Management System
- Account:** Account (with a dropdown arrow)
- Left Sidebar (Navigation Menu):**
  - Dashboard
  - Blood Group
  - Add Donor
  - Donor List
  - Manage Donation Query
  - Manage Page
  - Update Contact Info
- Main Content Area:**
  - Section Header:** Add Blood Group
  - Form:** A form with a label "Blood Group" and an adjacent text input field.
  - Action:** A blue "Save" button located below the input field.

The Windows taskbar at the bottom shows the search bar with "Type here to search", several application icons (including Edge, File Explorer, Mail, Word, and Chrome), and system tray information including the time "10:46" and date "13-01-2022".



# Manage Blood Group

BloodBank & Donor Management System

## Manage Blood Groups

LISTED BLOOD GROUPS

Show 10 entries Search

#	Blood Groups/th>	Creation Date	Action
1	A+	2022-01-06 12:22:51	<a href="#">✕</a>
2	B+	2022-01-06 12:22:58	<a href="#">✕</a>
3	AB+	2022-01-06 12:23:06	<a href="#">✕</a>
4	O+	2022-01-06 12:23:10	<a href="#">✕</a>
5	A-	2022-01-06 12:23:21	<a href="#">✕</a>
6	B-	2022-01-06 12:23:26	<a href="#">✕</a>
7	AB-	2022-01-06 12:23:35	<a href="#">✕</a>

# Brand Name Creation Date Action

Showing 1 to 7 of 7 entries

12:31 07-01-2022

# Add Donor

The screenshot shows a web browser window with the following details:

- Browser tabs: "BBDMs Admin Add Donor", "Modern Business - Start Bootstr...", "localhost / 127.0.0.1 | phpMyAdmin".
- Address bar: "localhost/Bloodbank-and-Donor-Management-System/Bloodbank%20and%20Donor%20Management%20System/bbdms/admin/add-donor.php".
- Page Title: "BloodBank & Donor Management System".
- Account menu: "Account" with a dropdown arrow.
- Left sidebar menu:
  - Dashboard
  - Blood Group
  - Add Donor
  - Donor List
  - Manage Contactus Query
  - Manage Pages
  - Update Contact Info
- Main content area:
  - Section: "Add Donor"
  - Form title: "BASIC INFO"
  - Fields:
    - Full Name\* (text input)
    - Mobile No\* (text input)
    - Email id (text input)
    - Age\* (text input)
    - Gender\* (dropdown menu, value: "Select")
    - Blood Group\* (dropdown menu, value: "Select")
    - Address (text area)
    - Message\* (text area)
  - Buttons: "Cancel" and "Save changes"
- Windows taskbar: Shows search bar, taskbar icons, system tray with date "07-01-2022" and time "12:32".

# Donor List

BloodBank & Donor Management System

Account

## DONOR'S LIST

Download Donor List

Show 10 entries

Search

#	Name	Mobile No	Email	Age	Gender	Blood Group	address	Message	action
1	Savant Rutuja Anil	8237386172	rutuja8237@gmail.com	Female	22	A+	AP - Hivare Tal - Khanapur Dist - Sangli	we want to donate blood to needy people	Make Hidden Delete
2	Fatih Pranzav Pandurang	8423489106	ppranav24@gmail.com	Male	25	B+	AP - Hatnur Tal-Tasgaon Dist-Sangli	I am able to donate blood	Make Hidden Delete
3	Jadhav Shradha Chandrakant	888556055	jadhavsh0@gmail.com	Female	35	A-	AP - Karapur Tal-Miraj Dist-Sangli	Can I donate blood?	Make Hidden Delete
4	Chavan Dhairyashree Sanjay	8303251787	dhairyas32@gmail.com	Male	27	B-	AP- Ichalkaranji Tal- Hatkangle Dist-Kothapur	My blood group is B- I want to donate my blood	Make Hidden Delete
5	Pawar Aditi Prashant	9405504864	pawaraditi1@gmail.com	Female	30	AB+	AP-Sangli Tal-Miraj Dist-Sangli		Make Hidden Delete
6	Kumbhar Vimal Rameshab	9921883889	kumbhar29@gmail.com	Female	60	AB-	AP-Palus Tal-Palus Dist-Sangli		Make Hidden Delete
7	Mali Seika Keshav	8812150402	sm80@gmail.com	Female	20	O+	AP-Mali Gali Tasgaon Tal- Tasgaon Dist-Sangli		Make Hidden Delete
8	Desai Ranvao Dadashab	7218196255	Desai72@gmail.com	Male	75	AB-	AP-Kandhe Pran Tal-Miraj Dist-Sangli		Make Hidden Delete
9	Gallivat Parvat Shankar	7709293888	gvs84@gmail.com	Female	70	O+	AP-Atpadi Tal-Atpadi Dist-Sangli		Make Hidden Delete
10	Shelke Anuja Anil	8834812012	Anu28@gmail.com	Female	45	B-	AP-Nimani Tal-Tasgaon Dist-Sangli		Make Hidden Delete

Type here to search

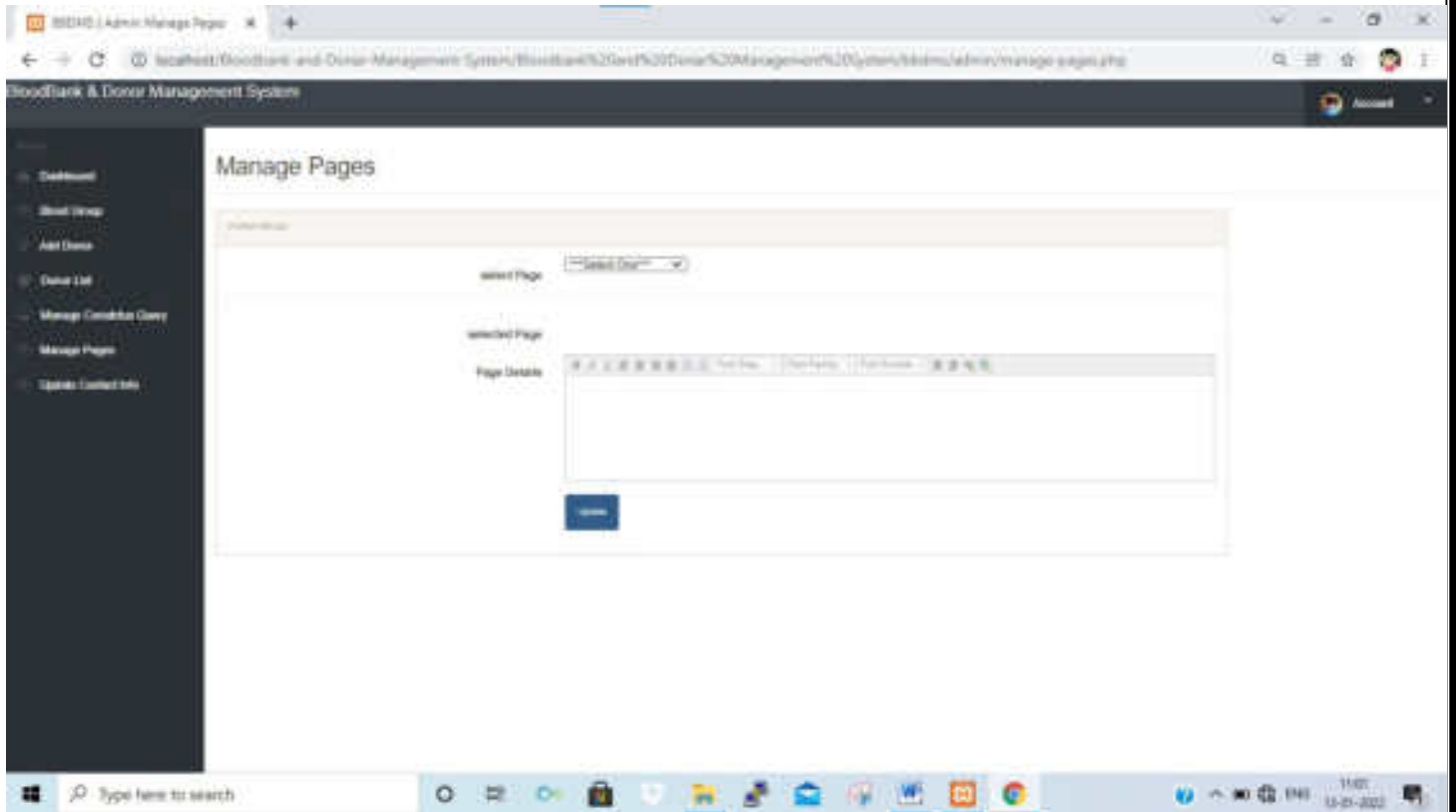
12:36  
07-01-2022



# Manage Contact Us Queries

The screenshot shows a web browser window displaying a web application titled "BloodBank & Donor Management System". The browser's address bar shows the URL: `localhost/BloodBank-and-Donor-Management-System/Bloodbank%20and%20Donor%20Management%20System/admin/manage-contact-us-queries.php`. The application has a dark sidebar on the left with a menu containing: Dashboard, Blood Group, Add Donor, Donor List, Manage Contact Us Query (selected), Manage Page, and Update Contact Info. The main content area is titled "Manage Contact Us Queries" and features a "Add Query" button at the top. Below this is a table with columns: SNo., Name, Email, Contact No., Message, Posting date, and Action. The table is currently empty, displaying a message: "No data available in table". At the bottom of the table, it says "Showing 0 to 0 of 0 entries". The Windows taskbar at the bottom shows the search bar, taskbar icons, and system tray with the date "11-21-2022" and time "10:10".

# Manage Page



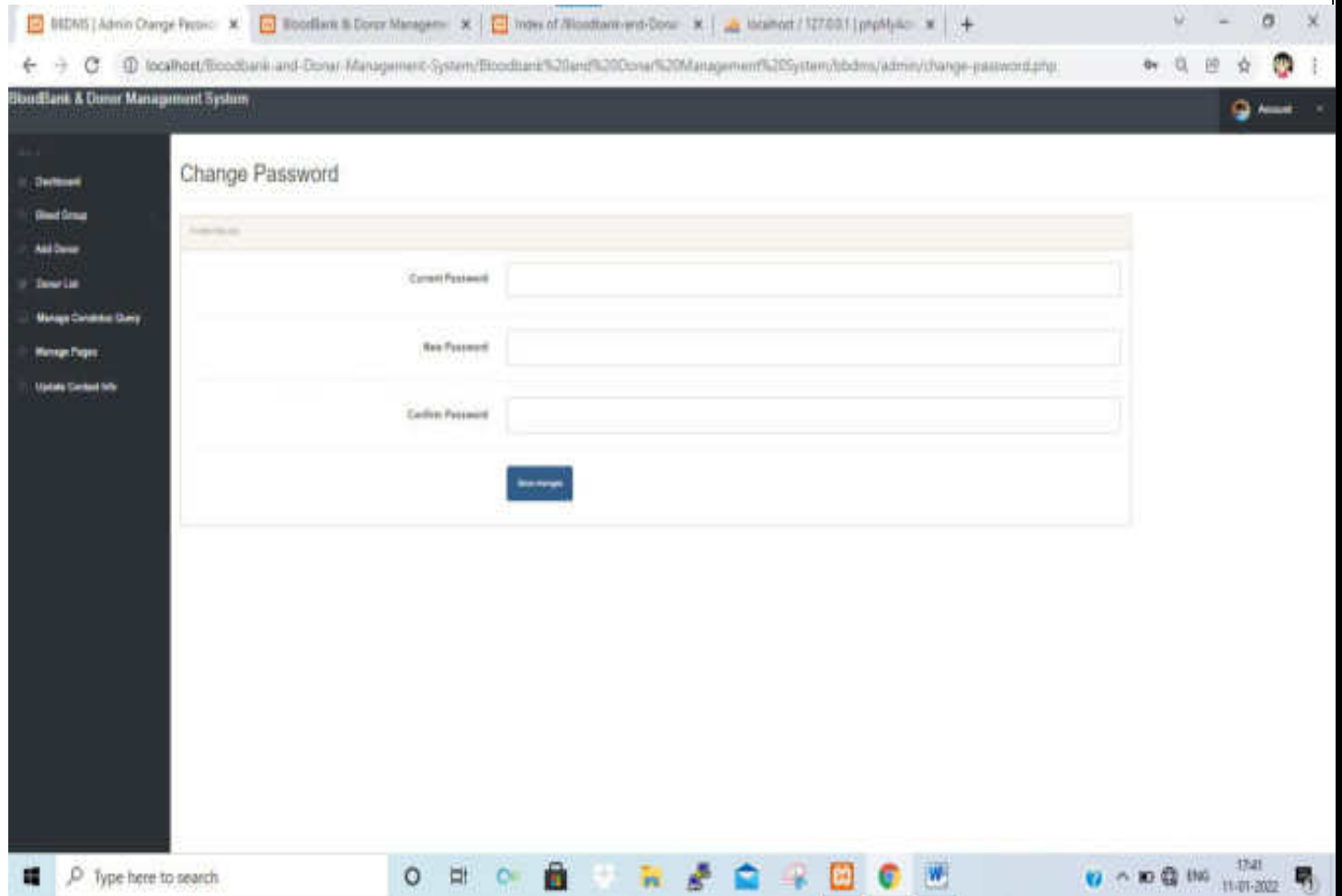
# Update Contact Info

The screenshot displays a web browser window with the following details:

- Browser Tabs:** EEDMS | Admin Update Contact, BloodBank & Donor Management, Index of BloodBank and Donor, localhost / 127.0.0.1 | phpMyAdmin.
- Address Bar:** localhost/BloodBank-and-Donor-Management-System/Bloodbank%20and%20Donor%20Management%20system/tbdms/admin/update-contactinfo.php
- Page Title:** BloodBank & Donor Management System
- Left Sidebar (Navigation):**
  - Dashboard
  - Blood Group
  - Add Donor
  - Donor List
  - Manage Donor's Query
  - Manage Pages
  - Update Contact Info
- Main Content Area:**
  - Section:** Update Contact Info
  - Form Fields:**
    - Address:** J.P. Tagore St. Tagore St. Bangl.
    - Email ID:** apriyad13@gmail.com
    - Contact Number:** 990040001
  - Action:** A blue 'Save' button is located at the bottom of the form.
- Windows Taskbar:** Shows the search bar with 'Type here to search', various application icons, and system tray information including 'ENG' and '11-01-2022'.



# Change Password



# Contact Us

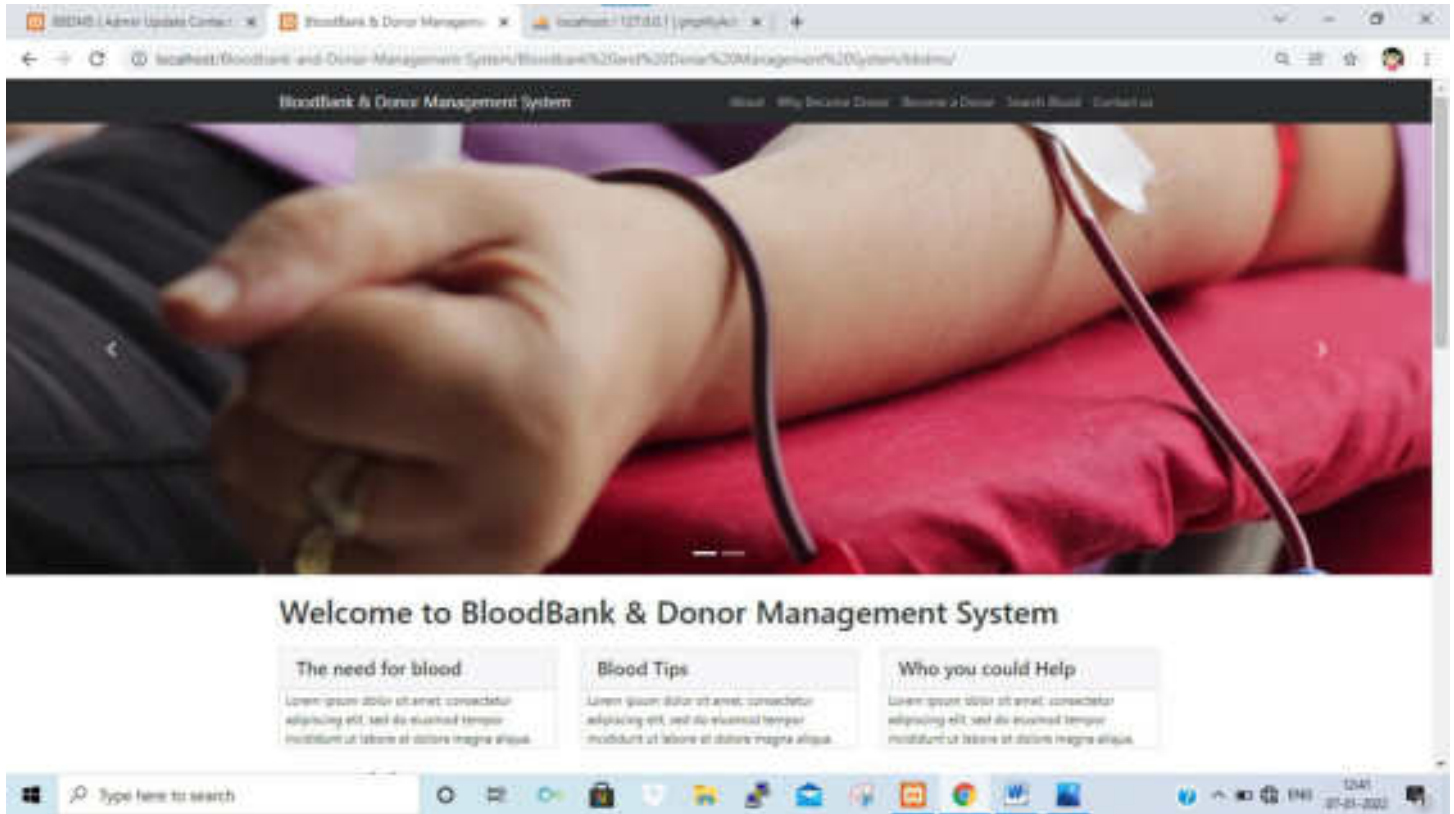
The screenshot displays a web browser window with the following elements:

- Browser Tabs:** BDDMS | Admin Dashboard, localhost / 127.0.0.1 / bddms / /, Modern Business - Start Bootstrap.
- Address Bar:** localhost/Bloodbank-and-Donor-Management-System/Bloodbank%20and%20Donor%20Management%20System/bddms/contact.php
- Navigation Bar:** Bloodbank & Donor Management System | About | Why become Donor | become a Donor | Search Blood | Contact Us
- Breadcrumb:** Home / Contact
- Send us a Message:** A form with fields for Full Name, Phone Number, Email Address, and Message, followed by a Send Message button.
- Contact Details:** A section containing the address (A/F - Tolgaon Ti - Tolgaon Ost - Sargol), phone number (p. 900294031), and email address (j.sankhyal10@gmail.com).
- Footer:** Bloodbank & Donor Management System 2022
- Windows Taskbar:** Search bar (Type here to search), taskbar icons (Edge, File Explorer, Mail, etc.), system tray (ENG, 12:28, 10-01-2022).

## **4.2 Reports**



# Welcome To BB&DMS



# Blood Bank & Donor Management System

The screenshot shows a web browser window with two tabs open, both titled "BloodBank & Donor Manage...". The address bar shows the URL: localhost/Bloodbank-and-Donar-Management-System/Bloodbank%20and%20Donar%20Management%20System/bbdms/. The website header is dark with the title "BloodBank & Donor Management System" and navigation links: "About", "Why Become Donor", "Become a Donor", "Search Blood", and "Contact us". The main content area features a large heading "Welcome to BloodBank & Donor Management System" and three columns of placeholder text under the headings "The need for blood", "Blood Tips", and "Who you could Help". The Windows taskbar at the bottom shows the search bar, task view, and various application icons, with the system tray displaying the time as 11:15 and the date as 13-01-2022.

# Some Of The Donor

The screenshot displays a web browser window with two tabs titled 'BloodBank & Donor Management'. The address bar shows the URL: localhost/Bloodbank-and-Donar-Management-System/Bloodbank%20and%20Donar%20Management%20system/ibtdms/. The page header includes the title 'BloodBank & Donor Management System' and navigation links: 'About', 'Why become Donor', 'Become a Donor', 'Search Blood', and 'Contact us'.

## Welcome to BloodBank & Donor Management System

### The need for blood

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.





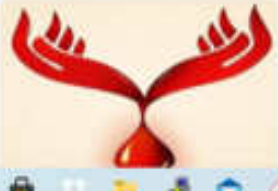

### Blood Tips

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

### Who you could Help

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

### Some of the Donar

 <p><b>Shelke Anuja Anil</b> Gender : Female Blood Group : B-</p>	 <p><b>Pawar Aditi Prashant</b> Gender : Female Blood Group : AB-</p>	 <p><b>Desai Ramrao Dadasaheb</b> Gender : Male Blood Group : AB-</p>
		

The bottom of the screenshot shows the Windows taskbar with the search bar, taskbar icons, and system tray showing the date 14-01-2022 and time 09:07.

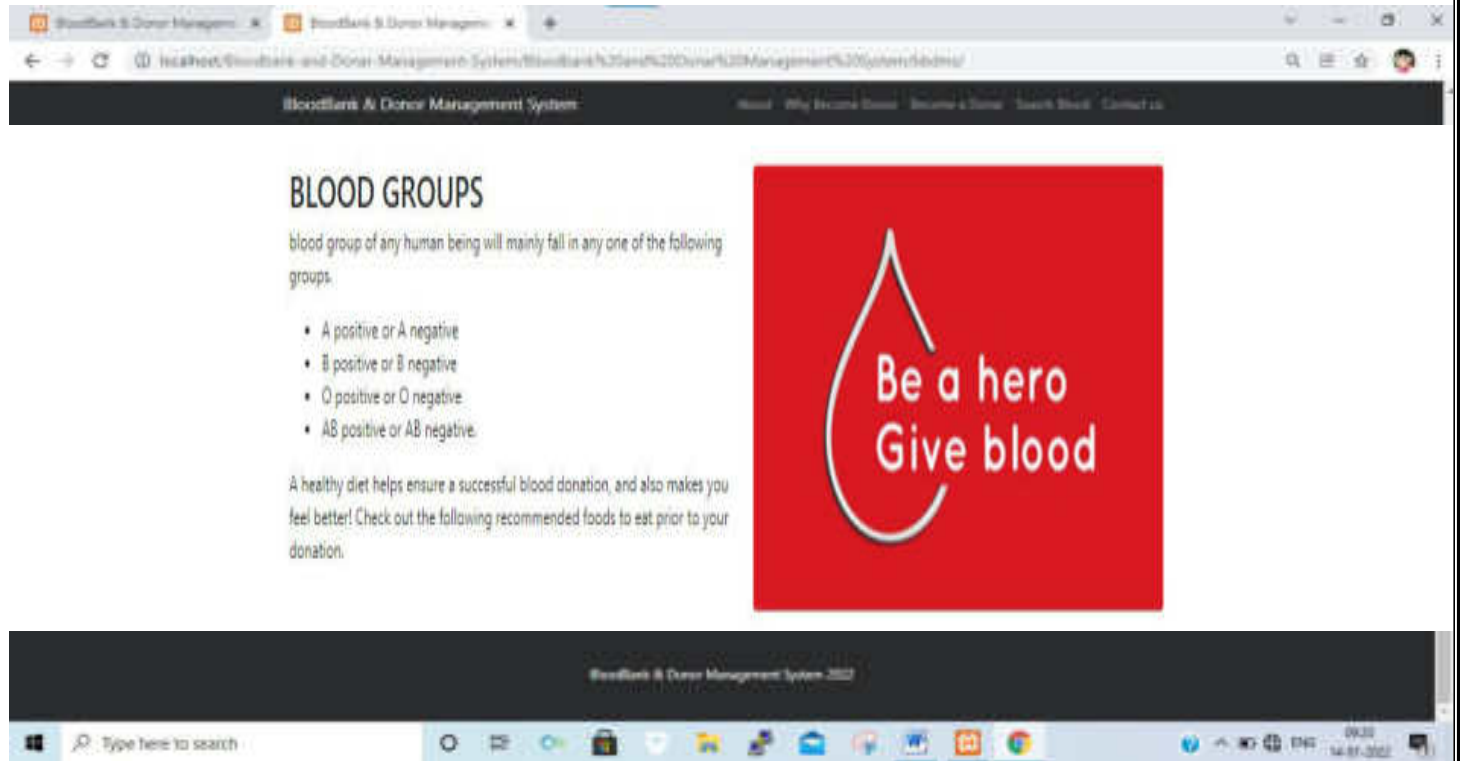


# Other Donor

The screenshot shows a web browser window with two tabs open, both titled 'BloodBank & Donor Management System'. The address bar shows the URL: localhost/Bloodbank-and-Donor-Management-System/Bloodbank%20and%20Donor%20Management%20system/bbdms/. The page header includes the system name and navigation links: 'About', 'Why Become Donor', 'Become a Donor', 'Search Blood', and 'Contact us'. The main content area is titled 'Some of the Donor' and features six donor profiles arranged in a 2x3 grid. Each profile consists of a red blood drop icon, the donor's name, gender, and blood group.

Donor Name	Gender	Blood Group
Desai Ramrao Dadasaheb	Male	A-
Pawar Aditi Prashant	Female	A-
Jadhav Shraddha Chandrakant	Female	A-
Shelke Anuja Anil	Female	B-
Sawant Rutuja Anil	Female	A-
Chavan Dhairyasheel Sanjay	Male	B-

# Blood Group



HealthCare Blood Bank and Donor Management System / Blood Bank / Donor Management / Donor Details


Blood Bank & Donor Management System

## BLOOD GROUPS

blood group of any human being will mainly fall in any one of the following groups.

- A positive or A negative
- B positive or B negative
- O positive or O negative
- AB positive or AB negative.

A healthy diet helps ensure a successful blood donation, and also makes you feel better! Check out the following recommended foods to eat prior to your donation.



Blood Bank & Donor Management System 2022

Type here to search

09:30 14-07-2022

# Universal Donors And Recipients

BloodBank & Donor Management System

About Why Become Donor Become a Donar Search Blood Contact us

## UNIVERSAL DONORS AND RECIPIENTS

The most common blood type is O, followed by type A. Type O individuals are often called "universal donors" since their blood can be transfused into persons with any blood type. Those with type AB blood are called "universal recipients" because they can receive blood of any type.

Become a Donor

BloodBank & Donor Management System 2022

Type here to search

09:24  
14-01-2022



# **UNIT 5**

**CONCLUSION**

**&**

**SUGGESTION**

## 5.1 CONCLUSION

The“**BloodBank And Donor Management System**”this project I tried to implement the centralized Blood Bank And Donor Management System.

This project is built on sales force andserve many advantages to the organization. As everything is centralized we can combine many objects in order to perform analysis. Effective analysis of data can help a lot in medical filed as many other objects and fields can be added to this system for the different blood groups.

Technology is introducing new innovation day by day, thus reducing the time required to do things. The proposed system can be used to the needy in case of emergency. The Android application can be used by the people interested in donating their blood by locating their nearest blood bank. The web application provides a way of communication and synchronization between the hospitals and the blood banks. It also provides them with the facility of communicating with the nearby donors in emergency. The data base is a vital aspect of the system.

## 5.2 FUTURE ENHANCEMENT

**BLOOD BANK MANAGEMENT** is a software application to be built such a way that it should suit all types of blood banks in the future.

One important future scope is the availability of location-based blood bank details and extraction of location-based donor details, which is very helpful to the acceptant people. All the time the network facilities cannot be used. The time donor request does not reach in proper time, this can be avoided through adding some message sending procedure. This will help to find proper blood donor in time. This will provide the availability of blood in time.

Enhancement projects usually include:

1. Add more functionality.
2. Social Media Integration like Blogger, twitter, etc.
3. SMS System



## 5.3 BIBLIOGRAPHY

This project is designed and developed with our talent and logic. But for more information and support we have take help and reference website and books as referred below:

### **Website Reference:**

<http://www.w3school.com>[http://www](http://www.indianbloodgroup.com)

[w.indianblood group.com](http://www.indianbloodgroup.com)

### **Book Reference:**

PHP & MySQL Web Development  
PHP Solutions:Dynamic Web Design Made Easy

PRN : 2015015500867463

ROLL NO: 4348

SEAT NUMBER:

SHRI SWAMI VIVEKANAND SHIKSHAN SANTHA'S  
PADMAABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,  
TASGAON.

DEPARTMENT OF MATHEMATICS

## CERTIFICATE

This is to certify that, **Miss: Dhabugade Snehal Sanjay** has  
Satisfactorily completed required project entitled

**"A STUDY OF FUZZY MODEL IN THE  
MARKETING OF RAISIN AND CURRENT."**

According to prescribed syllabus by "Shivaji University, Kolhapur"  
for the B.SC.-III course in Mathematics under my supervision  
during the Academic Year 2017-2018.

Date - | | 2018.

Examiner

Project in Charge

Head of Department

HEAD  
Department OF MATHS  
P. D. V. P. Mahavidyalaya  
TASGAON (Sangli)

PRN : 2015015500867424

**ROLL NO: 4353**

**SEAT NUMBER:**

**SHRI SWAMI VIVEKANAND SHIKSHAN SANTHA'S  
PADMAABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAYA,  
TASGAON.**

DEPARTMENT OF MATHEMATICS

## **CERTIFICATE**

This is to certify that, **Miss: Kheradkar Priyanka Nagesh** has  
Satisfactorily completed required project entitled

**"A STUDY OF FUZZY MODEL IN THE  
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Examiner

  
Project in Charge

  
Head of Department



A

Project Report On

**"A SYUDY OF FUZZY MODEL IN THE  
MARKETING OF RAISIN AND CURRENT."**

Submitted to

**Department of Mathematics**

Padmabhushan Dr. Vasantrodada Patil Mahavidyalaya tasgaon

**By**

**Miss. Dhabugade Snehal Sanjay**

Under the Guidance of

Prof.Patil P.

Prof. Patil A. K.

Prof. Daske N

Through

Principle,

Dr. Shri. Kumbhar R. R

Padmabhushan Dr.Vasantrodada Patil Mahavidyalaya, Tasgaon

For the Academic Year 2017-18.

A

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Padmabhushan Dr. Vasantrodada Patil Mahavidyalaya tasgaon

**By**

**Miss. Kheradkar Priyanka Nagesh**

Under the Guidance of

Prof. Patil P.

Prof. Patil A. K.

Prof. Daske N

Through

Principle,

Dr. Shri. Kumbhar R. R

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I am thankful to" SHIVAJI UNIVERSITY KOLHAPUR "for sanctioning the namely "A Study of Fuzzy Model For Marketing of Raisin and Currant." I am specially thankful to the Principal Dr. R. R. Kumbhar, Patil P.V, for encouragement to complete this project.Patil Ashwini, Dhaske Neeta madam for providing the necessary facilities & encouragement to complete this project work. Without his co-operation I could not complete my project work.

I am also very thankful to Agricultural produce market committee, Tasgaon. For providing the necessary information for this project.

Finally we would like to thanks to persons who helped us directly or indirectly discussion & valuable suggestion for completing the project work.

I am very thankful to our all well-wishers & our family member for their keen interest & encouragement to complete this project.

Place: - Tasgaon.

Date:-

*Snehal*

Name of Student and Signature:-  
(Miss. Dhabugade Snehal Sanjay)



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Place: - Tasgaon.

Date:-

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(Miss. Kheradkar Priyanka Nagesh)

## PREFACE

Indian is country of full of village many people are living in villages. Nearly about 75% people are living in villages. Therefore we are decided the study grapes production in four villages we have collected data in Tasgaon, vasumbe, kavathe ekand, soni. In this four villages data is collected. i.e. information is education, age, grapes type, soil type etc. we collected data by direct personal investigation or direct interview. We proceeds to study how the observation are classified and a frequency production is formed.

We apply process "the science of collection, manipulation, analysis & interpretation of numeric data" we also use mathematics in planning stage, statistics, physical science, social science, & education, war. Therefore we used in some data in this project.

As the main aim of our project is to "A Study of Fuzzy Model For the Marketing Of Raisin And Currant". We consider different types, of grapes, soil type fertilizer source of irrigation etc. so we decide to collect all primary data from the villages which will provide us the necessary & sufficient condition within less time & more accuracy. The specific information of the given farmer so that we may access more method in short span.

So we divided the selected area & from each village we selected a sample in production by simple method of the data is collected by filling questionnaires from each selected farmer by interview method.



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# CHAPTER I

## INTRODUCTION

### 1.1 Introduction:

Grapes are one of the most popular and palatable fruits in the world. Grapes can be crimson dark blue, yellow, green, orange and pink in colors. White grapes are actually green in colour, and are evolutionarily derived from the purple grapes. Mutations in two regulatory genes of which grapes turn of production of antho cyanins, white are responsible for the colour of purple grapes. Antho cyanins and other pigment chemicals of the large family of polyphenols in purple grapes are responsible for the varying shades of purple. In red wines grapes are typically an ellipsoid shape resembling a prolate spheroid.

The many countries in the world produce grapes. India is one of the countries that produce the grapes in many clusters. Maharashtra, Tamilnadu, Karnataka, are the major grapes producing state in India. In Maharashtra mainly Nashik, Sangli, Solapur districts and Bijapur district of Karnataka are cultivating grapes.

Presently the industry in the country is facing problems in marketing of produce in both domestic and

international markets. In this situation, optimal benefit from the grapes cultivation can be derived by establishing the products like raisin, juice, wine, squash, syrup, jam, jelly, vinegar, pickles chocolates, tartaric acids, oil, cattle feed, tannin etc. These products have market potential for both domestics and international markets.

In India, presently, 78 percent of grapes are used for table purpose, nearly 20 percent grapes are used of raisin production, and less than 2 percent of grapes are used in marketing juice and wine.

In India the Thomson seedless and it's clones like Sonaka seedless, Manic Chaman, Tas A Ganesh, and Sharad Seedless are used to produce the raisins.

The place "JUNONI" in 'Sangola' tahsil of Solapur district in Maharashtra has been selected by the raisin producers, for the establishment and promotion of grape drying units on large scale based on its appropriate geological and whether conditions.

This place is more suitable in terms of latitude, longitude, rainfall, temperature, humidity, air velocity for drying the grape in natural way. A barren land in JUNONI, is presently leading the raisin activities. There by JUNONI is turned in to Industrial hub.

After the raisins are produced, the farmers sell the product in the nearest market on assigned days, declared by



a market committee. In market the raisin are sold by the open Auction Method used by market committee. By this method the prospective buyers gather at the shop of the commission agent, around the heap of the produce, examine the produce and offer bids loudly. The produce is given to the highest bidder after taking the consent of the seller farmer. In this process the producer gets the price for his produce according to the grade and quality. The price of the produce depends on the supply and demand of the produce. Thus the producer does not know when his produce should be sold so that he can get optimal price for his produce. For this difficulty we have formed a fuzzy model for marketing of raisin and current which will suggest to the producer when to sell his produce for getting maximum price according to the grading and quality.

## **1.2 Research project:**

The title of the research project is "A STUDY OF FUZZY MODEL FOR MARKETING OF RAISIN AND CURRANT."



### **1.3 Objective of the Study:**

The objectives of the study are explained below. The project have been undertaken

- 1) To study the raisin production is Sangli district of Maharashtra.
- 2) To study the manufacturing process of the raisin.
- 3) To study the marketing process of the raisin in Sangli district.
- 4) To collect the data from different marketing committees and analyze it using various Mathematical tools.
- 5) To formulate the fuzzy model for price determination of raisin.
- 6) To suggest the recommendations about the factors affecting the price of raisin for the benefit of producers.

### **1.4 Methodology:**

The market research is based on the systematic research design to meet the objectives of the study.

#### **1. Study Region:**

For research study we have selected Sangli district of Maharashtra which includes raisin markets situated at Sangli and Tasgaon in Sangli district.

### **Sangli:**

The Sangli is a district place in the western region of the Maharashtra state and is located between  $16^{\circ} 45'$  and  $17^{\circ} 22'$  North latitudes and  $73^{\circ} 42'$  and  $75^{\circ} 40'$  East latitudes. The length of east to west is 250 km and width of north to south is 97km. The total area of Sangli district is 8572 sq.km. There are 10 tahsils in sangli district. KRUSHI UTPANNA BAJAR SAMITI, SANGLI i.e Agricultural produce market committee, is situated in Sangli.

### **Tasgaon:**

Tasgaon is one of the tahsil of Sangli district. It is located at  $17^{\circ} 03'$  north and  $17^{\circ} 06'$  east. It has elevation of 560 meter. Tasgaon is a famous tahsil of Sangli for the production of good qualities of grapes and raisins. Grapes of Tasgaon are imported mainly to Asian countries, UAE, Singapur, Hongkong, Shri Lanka, Bangaladesh. KRUSHI UTPANNA BAJAR SAMITI, TASGAON i.e Agricultural produce market committee, is situated at Tasgaon.

### **2.Data Collection:**

For the collection of data we have used two source.

- a) Primary Data                      b) Secondary Data



### **a) Primary Data:**

Survey method is used to collect the primary data. The survey is conducted in the following two agricultural market committees.

- i) Agricultural produce market committee, Tasgaon
- ii) Agricultural produce market committee, Sangli

This method will include the understanding of buying and selling process of raisin through direct observation at the point.

### **b) Secondary data:**

The study is based on the report of the market committees. Other sources like information articles published in news papers, magazines, internet, journals, annual reports, research papers, books etc. are used as secondary data.

### **3. Analysis:**

- 1) Collected data is analyzed by using the basic Mathematical tools.
- 2) Fuzzy model is formulated to determinate the price of raisin based on grading of green and yellow raisin and currents.

### **1.5 Chapter- wise summary:**

This project report is divided into eight chapters. First chapter is introductory and it explains the origin of the



problem "A study of Fuzzy Models for Marketing of Raisin and Current." The objective of the study are also stated along with the methodology used. The literature referred for the study is given.

The second chapter is devoted for the basic concept related to agricultural marketing.

The third chapter is accounted for the grapes which is a primary fruit for raisins. It includes the history of the grapes, and accounts the grape producing

The fourth chapter is main part of the project which is devoted to the raisins. The detailed procedure of the production of raisin is explained. Also the health benefits of raisin are stated.

The chapter five different price indices are given and fuzzy set theory is explained. Based on the fuzzy logic fuzzy quality price index is introduced.

The chapter six is data collection : The data about the raisin is collected by using the primary and secondary sources. The data from the two market committees namely Agricultural produce market committee, Sangli and agricultural produce market committee, Tasgaon are collected.

The seventh chapter is Data Analysis. In this chapter the collected data is analyzed by using the basis

mathematical tools. And a fuzzy models is formulated to determine the price of raisin based on qualities of raisin.

The chapter eight conclusions, recommendation and limitations of the study are stated.

Finally the project ends with list of publication and bibliography.

## **CHAPTER II**

### **BASIC CONCEPT**

#### **2.1 Introduction:**

One of the most crucial problems in many decision-making methods is the precise evolution of the pertinent data. Very often in real- life decision-making applications data are imprecise and fuzzy. A decision maker may encounter difficulty in quantifying and processing linguistic statements. Therefore it is desirable for decision for decision- making methods to use fuzzy data. It is equality important to evaluate the performance of the fuzzy decision making method. Hence, the development of useful fuzzy decision-making methods is really the need of the hour.

Agricultural marketing in a border sense is concerned with the marketing of the farm products produced by farmers. The study of agricultural marketing system is necessary to understand the complexities involved and identification of crucial problems for providing efficient services in the transfer of farm products to consumers. An efficient marketing system minimize marketing cost and benefits all the sections of the society. The expectations from the system vary from group to group and generally the objectives are in conflict. Therefore fuzzy logic, which is a tool to study complexities and resolves the situations, can be a very useful tool. It tries to provide maximum share to



the producer and required quality to the consumers at the lowest possible price.

Indian agriculture has attained a good degree of commercialization due to increase in production and social development by providing production incentives and distributing the benefits of growth. But still there are many problems in marketing of agricultural produce in India. The seasonal glut of the agricultural produce and consequent slump in price at the of harvest, scarcity during lean period, low productivity, erratic rainfall, scarcity of quality seeds, non-implementation of production technology by farmers, exploitation of producers by middlemen and big trading companies, lack of knowledge about grading and storage are some of the major hurdles in marketing of agricultural produce.

There is a large variation in the quality of agricultural products, which makes their grading and standardization somewhat difficult. In this project various methods are discussed for determining the price of the agricultural produce. Depending on the quality, fuzzy quality price is introduced. This helps in determining the expected price based on the quality and available pervious information.

In India the marketing of agricultural produce has been promoted through regulated markets for the benefit of producers most of whom are illiterate or unaware of modern

marketing activities. Most of state governments have enacted legislations to generate local agricultural committees. The purpose of the state regulations is to protect farmer's interests and to avoid the exploitation from intermediaries and organized traders. Also these local agricultural committees assure better price and timely payments for their produce. The producer or farmer wants sell farm produce processed farm produce at a satisfactory price. The price of the agricultural produce vary from place to place to place, time to time and also with the quality and quality. Also market information is an important part in the marketing system. Accurate adequate and timely availability of market information both the buyers and sellers. The market authorities declares the price, arrivals and changes in the market on daily basis. Normally the price s of the produce are declared in the form of price intervals i.e. maximum price to minimum price. From this information it becomes difficult for a farmer to guess about the possible price he will get in the market for his produce. The price of the produce mainly depends on the quality of the produce.

## **2.2 Market:**

There are so many definitions for market some definitions of market are as follows:

- 1) A market is a place or building where commodities are bought and sold.



- 2) A market is a sphere within which price determining forces operate.
- 3) A market is an area within which the forces of demand and supply converge to establish a single price.

### **Regulated Market:**

The market in which business is done in accordance with the rules and regulations formed by the statutory market organization representing different sections involved in markets. The market cost in such markets are standardization and practices are regulated.

### **Agricultural marketing:**

According to Thomson, agricultural comprises all the operations and agencies conducting them, involved in the movements of farm produced foods, raw materials and their derivative from the farm to the final consumers and effect of such operations on farmers, middlemen and consumer.

Agricultural markets are established regulated under the state agricultural Produce Marketing committee [APMC] act.

The responsibilities of AMPC are

- 1) Ensuring complete transparency in pricing system and transaction taking place in market area.
- 2) Providing market led extension service to farmer.





- 3) Ensuring payment for agricultural produce sold by farmers on the same day.
- 4) Promoting agricultural processing including activities for value addition on agricultural produce.
- 5) Publishing date on arrival and rates of agricultural produce brought on to market area for sale.

In India the organized marketing of agricultural commodities has been promoted through a network of regulated markets. Many state governments have enacted legislations to provide for the regulation of agricultural produce markets.

The purpose of the state regulation of agricultural markets was to protect from the exploitation of intermediaries and traders and to ensure better prices and timely payments for their produce.

### **Marketing strategy:**

There are stockiest at all major trading centers who buy large quantities as and when required and then sell it to retailers in smaller lots. Normal demand is witnessed for raisins throughout the year and it picks up during festival and marriage seasons. The restaurants, star hotels, caterers, sweet makers are the major consumers.

The Sangli, Tasgaon, Nashik, Pandharpur, centers of Mharashtra and Bijapur in Karnataka, supply bulk quantities of

raisin to central, western and northern parts of India and some part of the middle east.

### **Grading:**

The produce in market be graded according to the AGMARK standards.

### **Effects of grading:**

- 1) Grading before sale enable to get higher price for produce
- 2) Grading makes it possible to the producer to get proper market information
- 3) Grading reduce the cost of marketing by minimizing the expenses.

## **2.3 Buying and Selling:**

Buying and selling is one of the activities in the marketing process. The buying activity involves the purchase of the right goods, at the right place, at the right time, in the right quantities. It involves the problem of the of what buy, when to buy, from where to buy, how to buy and how to settle the parcel and the term of purchase.

The selling activity involves impersonal assistance, a prospective buyer to buy a commodity. The objective of a selling is to dispose of the goods at a satisfactory price. The prices of agricultural commodities vary from place to place, from time to time and with the equality to be sold. Therefore selling involves the problem of



when to sell, where to sell, through whom to sell and whether to sell in one lot of or in parts.

Methods of buying and selling:

Many methods for buying and selling of farm products are considered in India.

- 1) Under cover of a cloth (Hath system)
- 2) Private Negotiations.
- 3) Quotations and sample taken by commission agent.
- 4) Data sale method.
- 5) Mogham sale method.
- 6) Open auction method.
- 7) Close tender system.

**(A) Roster Bid system of open Auction Method:**

For selling the raisins in the markets under consideration "Roster Bid system of open Auction" method is followed whose producer is as follows.

- 1) Bidding starts from a first point in the market at a notified time about which the prospective buyers are given information in advance.
- 2) Buyers come at the produce, examine it, and offer bid loudly. The produce is given to the highest bidder after taking the consent of the seller farmers.
- 3) The bidding party (buyers or Traders) after the auction of the produce at first point moves to the second point in a clockwise or anticlockwise direction



till the auction of the produce at all points of the market is over.

- 4) The auction is supervised by the auction clerk nominated by the market committee. This method ensures, fair dealing to all parties and farmers with a superior quality of produce received at a higher price.

**(B) Close Tender System Method:**

This method is similar to the open auction method, except that bids are invited in the form of a close tender rather than by open announcement. The displayed at the shop of the commission agent is allotted lot numbers. The prospective buyers visit the shops, inspect the lots, offer a price for the lot which they want to purchase on slip of paper, and deposit the slip in a sealed box lying at the commission agent's shop. When the auction time is over, the slips are arranged according to the lot number, and the highest bidder is informed by the commission agent that his bid has been accepted and that he should take delivery of the produce. Some of the regulated markets have adopted this method of sale, which is time-saving and involves the minimum physical labour. There is no possibility of collusion among the buyers because each has quoted the price on the basis of his individual assessment of profit margins, taking into consideration the price prevailing in terminal and other secondary

markets. The smooth functioning of this method depends on the efficiency of and the supervision exercised by, the market committee officials.

The methods employed for the sale of agricultural commodities in Indian market differ from market to market and also from commodity to commodity. However, in regulated markets, either the open auction or the close tender system is prevalent.

In Tamil Nadu the buyers have adopted the close tender system which, it is claimed, is quicker and tends to give a higher price to the farmer than in the open auction system.

# CHAPTER III

## GRAPES : PRIMARY FRUIT FOR RAISIN

### 3.1 Introduction:

- Grapes are basically a subtropical fruit. (crop)
- A grape is a fruiting berry of deciduous woody vines of the botanical genus vitis.
- Grapes are typically an ellipsoid shape resembling a prolate spheroid.
- Grapes are high in water content and good for hydration.
- Grapes provide essential nutrients.
- Grapes are available in black, dark blue, yellow, green, orange, pink, and white, colors.
- Grapes are perishable.
- There are many byproducts, made from the grapes e.g raisin, wine, juice, jam, jelly, vinegar, grape seed oil, squash, syrup, pickles, chocolates, tartaric acid, cattle feed, tannin etc.



- There are different varieties of grapes in India.

- 1) Thomson seedless
- 2) Sonaka
- 3) Sharad seedless
- 4) Tas A ganesh
- 5) Manic chaman , etc.

- Thomson seedless grapes are known as Sultana Thomson.

### **3.2 History of Grapes**

The cultivation of the domesticated grape began 6000-8000 years ago in the east. The earliest rheological evidence for a dominant position of wine making in human culture dates from 8000 years ago in Georgia east.

#### **Grapes cultivating countries:**

Grapes cultivating countries are India, Spain, France, Iran, Turkey, united, States, Portugal, Argentina, Chile, South Africa.

#### **Grapes producer states in India:**

The following states are the producer of grapes in India

- 1) Maharashtra

- 2) Karnataka
- 3) Tamilnadu
- 4) Panjab
- 5) Andra Pradesh
- 6) Hariyana.

### 3.3 Grapes in Maharashtra

Maharashtra is a leading in India in production of grapes. Sangli and Nashik districts produces the grapes in scientific manner. The grapes produced in sangli and Nashik district are famous all over the India. Apart from these district grapes are grown in the districts of Pune, Satara, Solapur, ahmednagar, Osmanbad, Latur etc. Catchment Areas of Market.

Sr.No	State	District market	Blocks
1	Maharashtra	Sangli	Tasgaon, Kavathemahankal, Jath, Miraj, Atpadi, Walva, Kanapur, shirala, Palus, Kadepur
		Nashik	Satana, Kalvan, sinnar, Yeola, Dindori,

			Malegaon, Furgana, Igatputi, Niphad, Nandgaon
		Pune	Baramati, Indapur, Saswad, Daund, Bhore, Ambegaon, Junner, Wadgaon, Sirur, Rajgurunagar, Mulshi, Ghod, Welhe, Purandhar
		Solapur	Pandarpur, Akalkot, Sangola, Barsi, Karmala, Mohol, Malsiras, Madha, Mangalweda
		Satara	Karad, Khatav, Koregaon, Khandala, Patan, Phaltan, Wai, Mahabaleshwar
		Ahmednagar	Shirgonda, Karjath, Parner, Nevasa, Pathardi, Rahuri, Akola, Srirampur, Sangamner



### **3.4 Classification of Grapes**

Grapes are classified into two categories.

- 1) Eaten raw grapes (table grapes)
- 2) Wine grapes.

#### 1) Table Grapes:

- 1) They are in size.
- 2) They are seedless fruits.
- 3) They have thick skin.

In India about 78% of grapes are used for table purpose, 20% grapes are used for raisin production, 1.5% grapes for farming juice and 0.5% grapes for manufacturing wine are used.

### **3.5 Varieties of Grapes in Maharashtra**

- 1) Thomson seedless
- 2) Sonaka

- 3) Sharad seedless
- 4) Tas-A-Ganesh
- 5) Manic Chaman

### Description of Grapes

Sr.No	Name of the variety	Shape of berry	Color	T.S.S. of fresh grapes (0 brix)	Acidity%
	Thomson	Oval shape and	White	18 to 22	0.5 to 0.7
	Seedless	Elongated			
	Sonaka	Cylindrical and Elongated	Amber	22	0.4 to 0.7
	Sharad Seedless	Elliptical shape	Bluish black	18 to 21	0.5 to 0.7
	Tas-A-Ganesh	Avid shape	Green	20 to 22	0.5 to 0.65
	Manic Chaman	Cylindrical and Elongated	White	18 to 20	0.5 to 0.6

### 3.6 Availability Period of Grapes in the Market.

Sr. No.	State	Availability period
1	Maharashtra Karnataka Andrapradesh	December to May
2	Tamilnadu	December to April
3	Panjab Hariyana	June

- 1) Harvesting period of grapes in Maharashtra is in the month of February to March
- 2) Wholesale markets available for grapes in India are Mumbai, Calcutta, Delhi, Bangalore, Chennai, Ahmadabad, Pune, Nagpur etc.

### 3.7 Health Benefits of Grapes

Grapes contain mainly potassium, fiber and antioxidants known as polyphenols along with other minerals.

The many studies of research have shown that the consumption of grapes reduce to risk of 1) cancer 2)



heart diseases 3) blood pressure 4) kidney stone 5) constipation.

**1) Cancer :** Grapes contain antioxidants which prevent many types of cancer diseases.

**2) Heart diseases :** Fiber and potassium in grapes, support to reduce the heart diseases.

**3) Blood Pressure:** Grapes contain polyphenols which reduces Blood pressure.

**4) Kidney Stone :** Potassium in grapes reduces the risk of stones and reduces the formation of kidney stone.

**5) Constipation :** Fiber in grapes minimizes the Constipation. Grapes contain water hence it keeps grapes consumer hydrated and hence bowel movements become regular.

- Standard are established on the basis of certain characteristics such as weight, size, color, appearance, texture, moisture content, staple length, amount of foreign matter, ripeness, sweetness, chemical content etc. these characteristic on the basis of which products are standardized are termed as grade standard.

- Grading means the sorting of the unlike lot of the produce in to different lot according to the quality specifications laid down. Each lot has sub statically the same characteristics in so for as quantity is concerned.
- It is a method of dividing products in to certain lot or groups according with predetermined standard.



# CHAPTER IV

## MANUFACTURING PROCESS OF RAISIN

### 4.1 History of raisin

It is conceived that ancestors come upon fallen fruit which had dried in the sun, and after testing, its sweetness is discovered and thus the technique of drying fruit was discovered by an accident. Evidence has shown that raisins are produced by the Egyptian as early as 2000 B.C.

The word raisin comes from the French word Resinek.

### 4.1 Introduction

- 1) Raisin is a dried grape, which is also known as kishmish, Bedan, Manuka.
  - 2) Raisin is a high energy and low fat snack.
  - 3) Raisins are available throughout the year.
  - 4) A sultana was originally a raisin from sultana grapes of Turkish known as Thomson seedless United States.
  - 5) Sultana is golden colored dried grape.
  - 6) The countries of world India, Greece, China, Japan, France, Russia, Germany, Australia and South Africa etc. produce the raisins.
  - 7) India is producing the raisins since 1983.



8) The main areas of raisins production in India are Maharashtra and

Karnataka.

9) In India raisin is mostly produced in Sangli, Solapur and Nashik districts

of Maharashtra and Bijapur district of Karnataka and some places of

Tamilnadu, Andhra Pradesh and Punjab.

10) The place Junoni in Sangolataluka of Solapur district in Maharashtra

has been selected for the establishment and promotion of grape drying

units on large scale for its proper geological weather conditions.

11) Sangli, Nashik, and solapur districts of Maharashtra grow the large

quantities of grapes and growers supply it for producing the raisins.

12) In Maharashtra the main trading centers for raisins are Sangli, Tasgaon,

Nashik, and Phandharpur.

13) Raisins are used for eating purpose. Also raisins are used for cooking,

baking and brewing purpose.

14) Raisins are used in Ice-creams.

15) Raisins are used for making farsan items and desserts.

16) Raisins are used in some herbal medicine preparation.

17) Restaurants, star hotels, caterers and sweet makers are the major consumers of the raisins.

18) In India raisins are produced by drying varieties of grape such as

Thomson seedless, Sonaka, Sharad seedless, Tas-A-Ganesh, Manic

Chamman etc.

19) The technology of production in India is mostly based on the dipping of

the clean, sawed grapes in Australian dip emission process which contains the proper mixture of water, potassium carbonate and ethyl

oleate oil and then drying the grapes.

20) The important methods for drying the grapes are

i) shade drying ii) sun drying iii) mechanical drying iv) solar drying etc.

21) In Maharashtra mostly shade drying method is used.

22) Raisin is processed for different size, color and textures.

23) In Maharashtra different colored raisins are manufactured. In Sangli

districts mostly green, yellow, and black raisins are processed. In Nashik



districts mostly golden raisins are processed. After drying raisins are

treated with sulphur dioxide to obtain golden color.

In India green raisins have general acceptance among the consumers.

24) A currant is a black dried seed grape.

25) Black Corinth are zante current are miniature raisins. They are much

darker and have a tart, tangy flavor. They are called current.

#### 4.3 Nutrition in raisin:

Raisins are composed of food elements as sugars, fruit acids and mineral salts.

- 1) Raisin contains up to 72% sugar by weight in terms of fructose and glucose which is good source of carbohydrate.
- 2) Raisin contain fruit acids which as oleanolic, folic acid and pantothenic acid which are essential for the growth of the body.
- 3) Raisins contain the minerals as Calcium, Magnesium, Phosphorus, Iron, copper, potassium, Zink, Sodium etc.
- 4) Raisins also contain vitamin B6 and vitamin C, protein and fiber.
- 5) Raisins are antioxidants.
- 6) Raisins are free from cholesterol.
- 7) Raisins have no fat.

Hence raisin is healthy snack.

#### 4.4 Healthbenefits of raisin:



Raisin is healthy snack food and best source of quick energy. It contains many vitamins and minerals. It has high nutrients; hence it has many health benefits as -

- 1) Raisin contains fructose, glucose, proteins and vitamins and hence raisin helps in body building system.
- 2) Raisin is the source of antioxidants which contains polyphenols and it reduces blood pressure and also prevents the cancer diseases.
- 3) Raisin contains oleic acid which protects the mouth diseases.
- 4) Raisin contains potassium and magnesium, reduces the risk of kidney stones and heart diseases.
- 5) Raisin contains Iron and Calcium, and hence it increases the bones strength and prevents the development of osteoporosis.
- 6) Raisin contains fiber and water which helps for regular bowel movements and minimizes the constipation.
- 7) Raisin is helpful to protect the eyes from eye diseases and to increase the eyes efficiency in anemia diseases.

#### **4.5 Production of raisins:**

- 1) Raisins production in the world:

United kingdom, Turkey and South Africa are the largest raisin producers in the world. Also India Greece, Australia, Iran, China, Russia,

Afghanistan, Chile, Germany, Canada, Japan, France, Netherlands,

Argentina are also raisin producer countries.

## 2) Raisin production in India:

Presently in India 78% of grapes are used for the table purpose. About to

17 to 20% grapes are dried for raisin production. 1.5% grapes are used

for making juice and 0.5% grapes are used for manufacturing wine.

In India raisin is mostly produced in Sangli district, Solapur district and

Nashik district, Tasgaon tahshil in Sangli district of Maharashtra state and

Bijapur district in Karnataka state.

At Junoni, in Sangolataluka of Solapur district in Maharashtra has

been selected for the establishment and promotion of grape drying units

on large scale based on its appropriate geological and weather data and

proved the place most suitable in terms of latitude, longitude, rainfall, temperature, humidity of air, velocity etc. for drying the grape

natural way 'Junoni' a barren land is presently leading the raisin activities

in the country and has now turned into industrial urban town. The place

Bijapur in Karnataka is also selected for production of raisin.



### 3) Raw material for raisin:

A raisin is dried grape. The raw material for processing raisin is the

grape. To make 1kg of raisin approximately 4kg grapes are required.

These grapes must have good and uniform appearance qualities in order

to produce quality raisin as –

- i. Grapes must be ripen early.
- ii. Grapes have green and white color.
- iii. Grapes have smooth texture.
- iv. Grapes must be seedless.
- v. Grapes have a placing flavor.
- vi. Grapes have more pulp content.
- vii. Grapes must be free from injuries.
- viii. Grapes must be free from stick.

### 4) Grape varieties for making raisin.

Raisin is prepared from the sound dried grape.

Major production of

raisin about 90% in the world is form Thomson seedless grapes.

Other

white and colored seedless varieties of grapes are also used for raisin

production.

In India Thomson seedless and its mutants viz. Sonaka, Sharad



seedless, Tas-A Ganesh, Manic Chamman etc. are mainly used for raisin production.

Thomson seedless grapes-

Thomson seedless grape was developed in 1872 William

Thomson. He created it by taking cutting from an English seedless grape

and grafting them a Muscat grape vine, then resulting plant produced the

first Thomson seedless grapes. All such subsequent Thomson seedless

vines came from original grafting.

The Thomson seedless is white in color and thin skinned grape.

Its small berries are oval and elongated. It has high sugar content.

Thomson seedless grapes ripen early in the season and do not stick to

each other during the shipping; hence they are used mostly for raisin

production.

#### **4.6 Technology of raisin production –**

It contains three steps

- A) Dipping of grapes.
- B) Drying of grapes.
- C) Post drying of dried grapes.

**A) Dipping of grapes.**

Selected the grapes of good and uniform appearance qualities to produce the quality raisins.

In Maharashtra following three dipping treatment have been used.

- 1) For first dipping 1000kg grape berries a solution containing 2400gm of potassium carbonate, 1800ml dipping oil (ethyl oleateoil ) in every 100 lt. water having temp 35<sup>0</sup>c to 41<sup>0</sup>c, has been formed. Then grape bunches have been dipped into the formed solution for 3 minutes to increase the rate of water removed at the rate of 1.4 mg/cm<sup>2</sup>. The dipping duration affected the moisture content, color, intensity and other quality attributes.
- 2) For second dipping after 3days the solution of 10 lt. water + 160 gm potassium Carbonate +120 ml dipping oil is sprayed on the grape berries by considering 1 lt. solution for 40 kg grapes.
- 3) For third dipping after 5days the solution of 10 lt. water + 80 gm Potassium Carbonate + 80 ml dipping oil is sprayed on the grape berries by considering 1 lt. solution for 80 kg grapes.

**B) Drying of grapes-**

Drying process has to be selective to remove the water from grapes without affecting the outer skin structure and arrangement of wax plates.

There are 4 main methods used in raisin production in different parts of the world depending upon the cultivation conditions. The methods are as-

- i. Shade drying



- ii. Sun drying
- iii. Mechanical drying
- iv. Solar drying

The method of shade drying is used in Sangli, Solapur, Nashik districts of Maharashtra and Bijapur district of Karnataka. The shade drying method is as follows.

### **Shade Drying Method:**

- 1) The location of shade be considered at the place where day time temperature is in the range of 35<sup>0</sup>c to 41<sup>0</sup>c with minimum humidity or dry weather media. Shades of 60 feet length and 20 feet width and height of 10 feet with fabricated iron structure is made. They are having South- North orientation and flow of air from West to East and shades are covered form top by black plastic sheet.
- 2) The rows of racks are generally spaced apart from at a distance of 2 feet to 5 feet.
- 3) In a shade, 6 to 12 shelves are formed with inter space varying from 9 inches to 15 inches.

### **Manufacturing process:**

Harvesting of grapes period is from January to May every year. In manufacturing process, fully grown, ripped and good quality grapes are separated and have been put on drying racks. After first dipping the grapes are spread on racks. For drying purpose in this process around 1 kg of grapes are spread over 1sqr.feet area. The drying period will be 12 to 15 days approximately depending on actual temperature. During the



drying period after 3 days second dipping will be done and after 5 days third dipping will be done. Then after 12 to 15 days, during process will be completed and grapes be converted into raisins.

In process the time period to dry the grapes is governed by the physical characteristic of grapes and environment conditions.

### **C) Post drying of dried grapes:**

After the drying process has been completed, the raisins are sent to processing plants where raisins are cleaned with water to remove the foreign materials such as dust, sandy soil, stems and off grade raisins, from the rack is done manually.

4 kg grapes yield around 1 kg of raisin of three different quantities which depend on size color and texture of raisins.

Using the chemical process on raisins they are formed with different colored as green raisins, yellow raisins, and black raisins and golden raisins.

### **4.7 Steps for making raisin**

- Step I- Select the fresh seedless, ripped clean grapes.
- Step II- Remove the larger stems from grapes. Wash the grapes in the proper mixture of water, Potassium Carbonate and ethyl oleate thoroughly.
- Step III- Then collect the grapes on the plastic containers from which air can be circulated around the grapes and use the first dipping procedure.

- Step IV- Place the grapes on the iron racks, which are situated at sunny place, when the weather is dry and warm.
- Step V- Rotate the grapes every day. The process will be repeated after 3 to 4 days until the grapes become dry.
- Step VI- Then use second and third dipping procedure after 3 to 5 days respectively.
- Step VII- After 12 to 15 days grapes will be converted into dry fruits as raisins.
- Step VIII- Remove the raisins and store them in the dry airtight container in a cool place or storage.

#### **4.7 Dried grape quality:**

The quality raisin depends on operating, pretreatment, processing and storage conditions. The quality of raisins is evaluated in terms of appearance (color), nonstick, texture, cleanliness, flavor, and nutritional value. The texture of raisin is influenced by environment factors, cultural, physiological and genetic factors. The color of raisin be influenced by the state of the fresh grape. The marketability of raisins depends on size color and texture of the raisins.

#### **4.8 Varieties of raisins:**

Raisin varieties depend on the type of grapes used, size and color. The raisin varieties are made in different size. The raisin of different colors are formed by using the chemical procedure of sulphur dioxide.

Generally the varieties of raisins are

- i. Green raisin
- ii. Yellow raisin
- iii. Black raisin
- iv. Golden raisin
- v. Brown raisin
- vi. Sun dried brown raisin



- vii. Mixed raisins
- viii. Industrial grade raisins

In Sangli district generally green, yellow and black raisin are produced.

In Nashik district generally golden raisins are produced.

Indian green raisins have general acceptance among the consumers.

#### **4.9 Packing and storage:**

Final packing of raisins is done in card board boxes of 15 kg capacity and stored at cold storage at low temperature 4<sup>0</sup>c to preserve the original color of raisins.



## **GOLDEN RAISIN**



# CURRENT



## GREEN RAISIN





# CHAPTER V

## PRICE INDICES

### 5.1 Introduction:

In India, the organized marketing of agricultural commodities has been promoted through a network of regulated markets. Exporters, processors, and retail chain operators cannot procure directly from the farmers as the produce is required to be channelized through regulated markets and licensed traders. In the process, there is an enormous increase in the cost of marketing and farmers end up getting a low price for their produce. In these regulated markets the individuals bring their commodity according to some standards (weight or size). According to quality of agricultural produce producer gets the price i.e the price of the agricultural produce depends on the quality of the produce. The market value of the produce also depends on the past information of the prices of the produce i.e the rates in previous days, weeks or months.

## 5.2 Price Indices

A price offered for a particular commodity for a specific period is called a price index. We define the following terms

- Let  $x$  be an agricultural commodity to be sold in the market.
- A commodity of a single farmer with similar quality is called a block.
- Different blocks weigh differently.
  - Each block gets different rate

Let  $x_1, x_2, \dots, x_n$  be the  $n$  blocks. Let  $w_1, w_2, \dots, w_n$  be the weights. Let  $r_1, r_2, \dots, r_n$  be the price offered for these blocks.

### Price Interval ( $I_r$ )

It is a normal practice that prices declared by the market committees are in the form of range i.e minimum rate to maximum rate. We call this as price interval and denote it by  $I_r$ .

Thus  $I_r = [r_l, r_u]$ , where  $r_l = \min \{r_1, r_2, r_3, \dots, r_n\}$  and

$$r_u = \max \{r_1, r_2, r_3, \dots, r_n\} .$$

### Average Price ( $r_a$ )

If maximum and minimum values of the rates are available then arithmetic mean of the two values is the average rate  $r_a$  .

$$\text{Thus, } r_a = \frac{(r_l + r_u)}{2}$$

### Mean price ( $r_m$ )

$$r_m = \frac{(r_1 + r_2 + \dots + r_n)}{n}$$

### Weighted Mean Price ( $r_w$ )

Since rate interval or value of average rate does not indicate the exact behavior of market, weighted rate value is introduced. If  $x_1, x_2, \dots, x_n$  are  $n$  blocks with  $w_1, w_2, \dots, w_n$  are weights then weighted rate value is given by

$$r_w = \frac{r_1 w_1 + r_2 w_2 + \dots + r_n w_n}{w_1 + w_2 + \dots + w_n}$$

### Interval Weighted Price $r_w$ (Q)

Usually rates of agricultural produce are decided by the quality of the produce. It is convenient to divide the produce in three or four parts and then rate can be determined according to quality of produce.

We divide the rate interval in three parts according to the quality I, II, III and denote it by  $Q_I = (r_{u-t}, r_u]$ ,  $Q_{II} = [r_{i+t}, r_{u-t}]$ ,  $Q_{III} = [r_l, r_{i-t})$ . Quality I is good quality, Quality II is medium quality and quality III is the poor quality of the produce.

Then for the different qualities  $Q_I$ ,  $Q_{II}$  and  $Q_{III}$  the weighted mean prices are given by,

$$r_w(Q_I) = \frac{r_{i_1} w_{i_1} + r_{i_2} w_{i_2} + \dots + r_{i_\alpha} w_{i_\alpha}}{w_{i_1} + w_{i_2} + \dots + w_{i_\alpha}}$$



$$r_w(Q_{II}) = \frac{r_{j_1}w_{j_1} + r_{j_2}w_{j_2} + \dots + r_{j_\beta}w_{j_\beta}}{w_{j_1} + w_{j_2} + \dots + w_{j_\beta}}$$

$$r_w(Q_{III}) = \frac{r_{k_1}w_{k_1} + r_{k_2}w_{k_2} + \dots + r_{k_\gamma}w_{k_\gamma}}{w_{k_1} + w_{k_2} + \dots + w_{k_\gamma}}$$

Where  $\alpha, \beta$  and  $\gamma$  are the number of blocks whose price lies in the respective price intervals  $Q_I, Q_{II}$  and  $Q_{III}$

### 5.3 Fuzzy Sets

A fuzzy subset  $A$  of a set  $x$  is a function  $A: X \rightarrow I$ . If  $\alpha \in I$  then the set  $\{x \in X \mid A(x) \geq \alpha\}$  is called  $\alpha$ -level cut or in short  $\alpha$ -cut and is denoted by  $A_\alpha$ . The strict  $\alpha$ -level cut of  $A$  is the support of  $A$  is the set  $A_{0+} = \{x \in X \mid A(x) > 0\}$ . If  $A(x) = 1$ , for some  $x \in X$ , then  $A$  is called normal fuzzy set.

#### Fuzzy number

A fuzzy number is a fuzzy set  $A: R \rightarrow L$  which satisfies at least the following three properties,

- i)  $A$  is upper semi continuous
- ii)  $A(x) = 0$  outside some interval  $[c, d]$
- iii) There are real number  $a, b, c$ , and  $d$  such that  $c \leq a \leq b \leq d$  for which
  - 1)  $A(x)$  is monotonic increasing on  $[c, a]$
  - 2)  $A(x)$  is monotonic decreasing on  $[b, d]$
  - 3)  $A(x) = 1, a \leq x \leq b$

#### 5.4 Fuzzy Quality Price ( $r_f$ )[1]

In this method a fuzzy quality function is designed depending on the quality of produce. The quality of particular block  $x_i$  is determined according to some measure. If this measure is in percentage then accordingly its fuzzy quality value is obtained.

The value of the block  $x_i$  is then obtained by multiplying the highest rate  $r_u$  by this fuzzy quality value  $Q(x)$ . We define percentage function  $P: X \rightarrow [0,100]$  where  $X$  is set of different blocks of produce under consideration and

$P(x_i) = p_i$  ( $i = 1, 2, \dots, n$ ) means quality of block  $x_i$  is  $p_i$  percentage.

We define the fuzzy quality  $Q$  by the function

$Q: [0,100] \rightarrow [0,1]$  by

$$Q(x) = \begin{cases} \frac{x^2}{2\beta^2} & \text{for } 0 \leq x \leq \beta \\ \left[ 1 - \frac{(x-100)^2}{2(100-\beta)^2} \right] & \text{for } \beta \leq x \leq 100 \end{cases}$$

Where  $\beta$  is the parameter which depends on quality of produce and the past information about the prices .

Fuzzy quality price  $r_f$  for the block  $x_i$  is given by,

$$r_f = (Q \circ P) (x_i) r_u$$



# CHAPTER VI

## DATA COLLECTION

### 6.1 Introduction :

In Maharashtra state of India the grapes are cultivated and then processed to produce raisin and currant. The primary data of green raisin and currant is collected from the Tasgaon Agriculture Market Committee for the specific period. And the primary data of the yellow raisin is collected from the Sangli Agriculture committee for the specific period.

### 6.2 Green raisin:

Grapes are cultivated largely and processed to produce green raisin at Tasgaon tahasil situated in Sangli district of Maharashtra. Grapes produced there are well known worldwide for its quality and taste. The data is collected form the Tasgaon, Agriculture Market Committee. For the specific period table 1 below depict the sample of primary data of different blocks of green raisin. Each block contain different number of boxes. Each box contains 15 kg of raisin.

For specific period in Tasgaon Raisin Market of Sangli District (M.S.) table 1 below depict the primary data of 73 blocks of green raisin.

**Table:1**

(primary data of 73 blocks of green raisin)				
Block labeling ( $x_n$ )	Quantity of boxes ( $b_n$ )	Total Quantity of raisin $W_n = 15(b_n)$	Price per kg ( $r_n$ )Rs.	Total price ( $W_n r_n$ )Rs.
1.	17	255	229	58395
2.	28	420	240	100800



3.	19	285	220	62700
4.	21	315	257	80995
5.	29	435	253	110055
6.	20	300	257	77100
7.	31	465	251	116715
8.	62	930	263	244590
9.	31	465	262	123225
10.	31	465	248	115320
11.	56	840	260	218400
12.	19	285	250	71250
13.	30	450	252	113400
14.	42	630	235	148050
15.	21	315	260	81900
16.	34	510	265	135150
17.	31	465	256	119040
18.	76	1140	261	297540
19.	34	510	260	132600
20.	46	690	256	176640
21.	26	390	235	91650
22.	33	495	247	122265
23.	10	150	230	34500
24.	28	420	241	101220
25.	45	675	210	141750
26.	26	390	272	106080
27.	48	720	256	184320
28.	35	525	234	1221855
29.	36	540	255	137700
30.	24	360	220	79200
31.	55	825	230	181500
32.	32	480	230	110400
33.	27	405	242	98010
34.	24	360	254	91440
35.	47	705	250	176250
36.	55	825	240	918000
37.	35	525	235	123375
38.	18	270	249	67230

39.	43	645	228	147060
40.	25	375	240	90000
41.	26	390	244	95160
42.	33	495	243	120285
43.	21	315	229	72135
44.	19	285	246	70110
45.	20	300	237	71100
46.	44	640	234	149760
47.	55	825	220	181500
48.	30	450	214	96300
49.	49	735	230	169050
50.	70	1050	231	242550
51.	30	450	210	94500
52.	25	375	225	84375
53.	18	270	217	58590
54.	35	525	213	111825
55.	36	540	227	122580
56.	44	640	236	151040
57.	40	600	214	128400
58.	18	270	220	59400
59.	25	375	220	82500
60.	421	6315	228	1439820
61.	24	360	220	79200
62.	22	330	240	79200
63.	13	195	234	45630
64.	21	315	215	67725
65.	12	180	233	41940
66.	42	630	232	146160
67.	28	420	220	92400
68.	15	225	205	46125
69.	27	405	230	93150
70.	15	225	234	52650
71.	5	75	205	15375
72.	36	540	210	113400
73.	13	195	210	40950



### 6.3 Yellow Raisin:

In the regulated market run by Sangli District Market Committee, the individual farmers bring their agricultural produce according to some standards (weight or size). market Committee follows the Roster Method of Open Auction System. According to quality of agricultural produce producer gets the price. In this region yellow raisin is produced by processing some special quality of grapes. This is one of the famous markets for buyers and sellers of yellow raisin which is well known worldwide for its quality and taste. For specific period of yellow raisin market in Sangli district (M.S.) table 2 below depict the primary data of different blocks of yellow raisin. Each block contains different number of boxes and each box contains 15 kg of yellow raisin.

**Table:3**

Block labeling ( $x_n$ )	Quantity of boxes ( $b_n$ )	Total Quantity of raisin $W_n = 15(b_n)$	Price per kg ( $r_n$ )Rs.	Total price ( $W_n r_n$ )Rs.
1	25	375	191	71625
2	26	390	180	70200
3	13	195	140	27300
4	37	555	190	105450
5	14	210	140	29400
6	10	150	110	16500
7	36	540	181	97740
8	23	345	110	37950
9	15	225	185	41625
10	20	300	192	57600
11	15	225	103	23175
12	24	360	120	43200
13	12	180	105	18900
14	01	15	170	2550



15	40	600	200	120000
16	39	585	200	117000

#### 6.4 Currant:

The grapes are cultivated largely and processed to produce currant in Tasgaon. The data is collected from the Tasgaon Agriculture Market Committee. For specific period in Tasgaon Currant Market of Sangli District (M.S) table 3 below depict the sample of primary data of different blocks of currant. Each block contains different number of boxes. Each box contains 15 kg of current.

Table:3

Primary data of 13 blocks of currant				
Block labeling ( $x_n$ )	Quantity of boxes ( $b_n$ )	Total Quantity of raisin $W_n = 15(b_n)$	Price per kg ( $r_n$ )Rs.	Total price ( $W_n r_n$ )Rs.
1	11	165	81	13365
2	20	300	100	30000
3	21	315	85	27775
4	16	240	90	21600
5	7	105	60	6300
6	9	135	70	6450
7	13	195	75	14625
8	25	375	84	31500
9	23	345	89	27705
10	30	450	80	36000
11	38	570	96	54720
12	34	510	78	39780
13	16	240	100	24000

## CHAPTER VII

### DATA ANALYSIS

#### 7.1 Data Analysis of Green Raisin:

Table 1 below depicts the primary data of different blocks of green raisin.

**Table:1**

(primary data of 73 blocks of green raisin)

Block labeling ( $x_n$ )	Quantity of boxes ( $b_n$ )	Total Quantity of raisin $W_n = 15(b_n)$	Price per kg ( $r_n$ )Rs.	Total price ( $W_n r_n$ )Rs.
1.	17	255	229	58395
2.	28	420	240	100800
3.	19	285	220	62700
4.	21	315	257	80995
5.	29	435	253	110055
6.	20	300	257	77100
7.	31	465	251	116715
8.	62	930	263	244590
9.	31	465	262	123225
10.	31	465	248	115320
11.	56	840	260	218400
12.	19	285	250	71250
13.	30	450	252	113400
14.	42	630	235	148050
15.	21	315	260	81900
16.	34	510	265	135150
17.	31	465	256	119040
18.	76	1140	261	297540
19.	34	510	260	132600
20.	46	690	256	176640



21.	26	390	235	91650
22.	33	495	247	122265
23.	10	150	230	34500
24.	28	420	241	101220
25.	45	675	210	141750
26.	26	390	272	106080
27.	48	720	256	184320
28.	35	525	234	1221855
29.	36	540	255	137700
30.	24	360	220	79200
31.	55	825	230	181500
32.	32	480	230	110400
33.	27	405	242	98010
34.	24	360	254	91440
35.	47	705	250	176250
36.	55	825	240	918000
37.	35	525	235	123375
38.	18	270	249	67230
39.	43	645	228	147060
40.	25	375	240	90000
41.	26	390	244	95160
42.	33	495	243	120285
43.	21	315	229	72135
44.	19	285	246	70110
45.	20	300	237	71100
46.	44	640	234	149760
47.	55	825	220	181500
48.	30	450	214	96300
49.	49	735	230	169050
50.	70	1050	231	242550
51.	30	450	210	94500
52.	25	375	225	84375
53.	18	270	217	58590
54.	35	525	213	111825
55.	36	540	227	122580
56.	44	640	236	151040



57.	40	600	214	128400
58.	18	270	220	59400
59.	25	375	220	82500
60.	421	6315	228	1439820
61.	24	360	220	79200
62.	22	330	240	79200
63.	13	195	234	45630
64.	21	315	215	67725
65.	12	180	233	41940
66.	42	630	232	146160
67.	28	420	220	92400
68.	15	225	205	46125
69.	27	405	230	93150
70.	15	225	234	52650
71.	5	75	205	15375
72.	36	540	210	113400
73.	13	195	210	40950
n=73.	$\sum b_n = 2682$	$\sum w_n = 40230$		$\sum w_n r_n = 8211375$

For the primary data in table 1 the following results were observed

- i. Price Interval ( $I_r$ ) = [205,272]
- ii. Average Price ( $r_a$ )=283.50
- iii. Mean Price ( $r_m$ )=236.28
- iv. Weighted Mean Price( $r_w$ )=204.110
- v. Interval weighted price ( $r_w(Q)$ )

The interval [250,272] is subdivided into three sub-price intervals according to the qualities of the raisin box  $Q_I = (251, 272]$  ,  $Q_{II} = [228,250]$ ,  $Q_{III} = [205,227)$ .

Therefore, for these qualities the weighted prices are given by

$$r_w(Q_I) = 258.89838, r_w(Q_{II}) = 236.41, r_w(Q_{III}) = 217.143$$

- vi. Fuzzy Quality Price

### Calculation of $\beta$

In present model we assume that for 50% quality of green raisin producer will get minimum price  $r_l$ . Further we assume that there is no block of green raisin having quality less than 50%.

Therefor for  $x=50\%$  and  $Q(x)=r_l=205$  and  $r_u=272$   $Q$  is defined by

$$(Q \circ P)(x) = \begin{cases} \frac{x^2}{2\beta^2} & \text{for } 0 \leq x \leq \beta \\ 1 - \frac{(x-100)^2}{2(100-\beta)^2} & \text{for } \beta \leq x \leq 100 \end{cases}$$

$$r_l = 1 - \frac{(x-100)^2}{2(100-\beta)^2} r_u \text{ for } \beta \leq x \leq 100$$

$$205 = 1 - \frac{(x-100)^2}{2(100-\beta)^2} \cdot 272 \quad 50 \leq x \leq 100$$

$$\beta = 28.72 \text{ approximayely } 29$$

**Table:2**

Sr.No.	Quality of blocks $P(x_i) = x_i\%$	Fuzzy Quality Price ( $r_f$ ) Rs.
01	50	205
02	60	228
03	70	248
04	80	261
05	90	269
06	100	272

These results shows that price of the raisin depends on quality and trading of the product .



## 7.2 Data Analysis of Yellow Raisin:

Table:3

Block labeling ( $x_n$ )	Quantity of boxes ( $b_n$ )	Total Quantity of raisin $W_n = 15(b_n)$	Price per kg ( $r_n$ )Rs.	Total price ( $W_n r_n$ )Rs.
1	25	375	191	71625
2	26	390	180	70200
3	13	195	140	27300
4	37	555	190	105450
5	14	210	140	29400
6	10	150	110	16500
7	36	540	181	97740
8	23	345	110	37950
9	15	225	185	41625
10	20	300	192	57600
11	15	225	103	23175
12	24	360	120	43200
13	12	180	105	18900
14	01	15	170	2550
15	40	600	200	120000
16	39	585	200	117000
$n=16$	$\sum b_n = 350$	$\sum W_n = 5250$		$\sum W_n r_n = 880215$

For the primary data in table 2 the following results were observed

- i. Price Interval ( $I_r$ ) = [103,200]
- ii. Average Price ( $r_a$ )=151.50
- iii. Mean Price ( $r_m$ )=157.31



iv. Weighted Mean Price( $r_w$ )=167.66

v. Interval weighted price ( $r_w(Q)$ )

The interval [103,200] is subdivided into three sub-price intervals according to the qualities of the raisin box

$Q_I = (169,200]$  ,  $Q_{II} = [136,168]$  ,  $Q_{III} = [103,135)$ .

Therefore, for these qualities the weighted prices are given by

$r_w(Q_I) = 190.7364$  ,  $r_w(Q_{II}) = 140$  ,  $r_w(Q_{III}) = 110.8928$

vi. Fuzzy Quality Price

### Calculation of $\beta$

In present model we assume that for 50% quality of green raisin producer will get minimum price  $r_l$ . Further we assume that there is no block of green raisin having quality less than 50%.

Therefore for  $x=50\%$  and  $Q(x)=r_l=103$  and  $r_u=200$   $Q$  is defined by

$$(Q \circ P)(x) = \begin{cases} \frac{x^2}{2\beta^2} & \text{for } 0 \leq x \leq \beta \\ 1 - \frac{(x-100)^2}{2(100-\beta)^2} & \text{for } \beta \leq x \leq 100 \end{cases}$$

$$r_l = 1 - \frac{(x-100)^2}{2(100-\beta)^2} r_u \text{ for } \beta \leq x \leq 100$$

$$103 = 1 - \frac{(x-100)^2}{2(100-\beta)^2} 200 \quad 50 \leq x \leq 100$$

$$\beta = 49.24 \text{ approximately } 49$$

**Table:4**

Sr.No.	Quality of blocks $P(x_i) = x_i\%$	Fuzzy Quality Price ( $r_i$ ) Rs.
01	50	103
02	60	138
03	70	169
04	80	184
05	90	196
06	100	200

These results shows that price of the raisin depends on quality and trading of the product .

### 7.3 Data Analysis of Currant :

Table 5 below depict the primary data of different blocks of current.

**Table:5**

Primary data of 13 blocks of currant				
Block labeling ( $x_n$ )	Quantity of boxes ( $b_n$ )	Total Quantity of raisin $W_n = 15(b_n)$	Price per kg ( $r_n$ )Rs.	Total price ( $W_n r_n$ )Rs.
1	11	165	81	13365
2	20	300	100	30000
3	21	315	85	27775
4	16	240	90	21600
5	7	105	60	6300
6	9	135	70	6450
7	13	195	75	14625
8	25	375	84	31500
9	23	345	89	27705

10	30	450	80	36000
11	38	570	96	54720
12	34	510	78	39780
13	16	240	100	24000
$n=13$	$\sum b_n = 263$	$\sum w_n = 3945$	$\sum r_n = 1088$	$\sum w_n r_n = 335820$

For the primary data in table 5 the following results were observed

- i. Price Interval ( $I_r$ ) = [60,100]
- ii. Average Price ( $r_a$ )=80
- iii. Mean Price ( $r_m$ )=83.69
- iv. Weighted Mean Price( $r_w$ )=85.13
- v. Interval weighted price ( $r_w(Q)$ )

The interval [60,100] is subdivided into three sub-price intervals according to the qualities of the raisin box  $Q_I = (88,100]$  ,  $Q_{II} = [73,88]$  ,  $Q_{III} = [60,73)$ .

Therefore, for these qualities the weighted prices are given by

$$r_w(Q_I) = 91.46, r_w(Q_{II}) = 80.619, r_w(Q_{III}) = 65.625$$

- vi. Fuzzy Quality Price

### Calculation of $\beta$

In present model we assume that for 50% quality of green raisin producer will get minimum price  $r_1$ . Further we assume that there is no block of green raisin having quality less than 50%.



Therefore for  $x=50\%$  and  $Q(x)=r_L=60$  and  $r_U=100$   $Q$  is defined by

$$(Q \circ P)(x) = \begin{cases} \frac{x^2}{2\beta^2} & \text{for } 0 \leq x \leq \beta \\ 1 - \frac{(x-100)^2}{2(100-\beta)^2} & \text{for } \beta \leq x \leq 100 \end{cases}$$

$$r_t = 1 - \frac{(x-100)^2}{2(100-\beta)^2} r_U \text{ for } \beta \leq x \leq 100$$

$$60 = 1 - \frac{(x-100)^2}{2(100-\beta)^2} 100 \quad 50 \leq x \leq 100$$

$$\beta = 44.10 \text{ approximately } 44$$

**Table:2**

Sr.No.	Quality of blocks $P(x_i) = x_i\%$	Fuzzy Quality Price ( $r_f$ ) Rs.
01	50	60
02	60	74.40
03	70	85.60
04	80	93.60
05	90	98.41
06	100	100

These results shows that price of the raisin depends on quality and trading of the product.

## **CHAPTER VIII**

# **CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS**

### **Conclusion:**

- 1] The study will enable to the raisin producer to understand the problems regarding the forming good quality raisins.
- 2] The study will help resin producer to understand the importance of producing the raisin according to the grading and standardization based on agricultural produce act.
- 3] The study will help raisin producer to understand the importance of quality of reason for getting an idea about the price of the reason.
- 4] The fuzzy quality price model will help in determining the expected price based on quality and available previous information.
- 5] The fuzzy quality price model can be applied to any agricultural produce having similar marketing facility.

### **Recommendation:**

- 1] At the trading place there must be Display Board to know the price of the raisin.
- 2] There must be online facility for knowing the information about the trading of raisins.



3] It is necessary to have fixed grade standards for raisin which are universally accepted and followed by all the trading partner according to Agricultural product act which is determined on the basis of characteristics as weight , size, colour, appearances, ripeness ,sweetness, moisture, content, taste, chemical content etc. it cetera fuzzy subsets

4] The government should arrange the workshop, seminars, training programs to the raisin procedure o manufacture the raisin according to the agricultural produce act , related to grading and standardization which will effect to export the raisin in other countries also. It benefit to obtain the optimal price to the raisin producers.

5] The Roster Bid system of open Auction method is a very time consuming process, because of the variation of the quality and quantity of different lots. According to open announcement raisin producer can get, same what low price committees should adopt closed tender system method. This method is quicker and gives a higher price to the producers than the open Auction Method

### **Limitations:**

[1] The date of collected data is kept unknown.

[2] Information may be outdated.

[3] It may be difficult to determine the accuracy of the secondary data.

[4] Some market committees are reluctant to give any



information for research .Hence convenient data us used for conducting the research. Hence convenient data is used for conducting the research.

[5] The survey and research has been done only on the data collected from Tasgaon and Sangli market committees.

Therefore the results show the market position of Tasgaon and Sangli in Maharashtra. Therefore results may not be applied to all raisin trading centers of Maharashtra.

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# PROJECT

2017-2018

PROJECT NAME

**SELF CHARGING E-BIKE**

AMOL K PATIL

ADHIK A LUGADE

ANIL S SHINDE

DEPARTMENT OF PHYSICS

P.D.V.P. COLLEGE TASGAON



# PHOTO GALLERY





## ❑ CONCLUSION

- ➔ This e-bike is very less price than the market bike but that bike are not self charging bikes. Market e-bike price is 45000rs which near equal to a motorcycle's price.
- ➔ This bike can run up to 40 km with speed of 25 to 30 km/h.
- ➔ It can charged without any other resource.
- ➔ The price of this kit is only 6000 Rs

## ❑ ADVANTAGES

- ➔ This bike is eco friendly .Now we see the example of Delhi. Its polluted city now. So use of this bike can decrease the pollution. And save future for next generation
- ➔ The poor peoples who cant afford to buy a bike .they can buy this cheapest ebike
- ➔ The peoples who do cycling in mountains they can also use this bicycle. They can charge mobile phones or use any electronic equipment
- ➔ Using this e-bike we can save conventional energy source. We no need to of petro or diesel to run this bike. So we can save resources like petrol and diesel
- ➔ This ebike produces very low sound so it also reduces sound pollution. Its Maintenance free bike so it also save our money and time

## Disadvantages

- ➔ This bike has only a single drawback that its max speed is only 40km/h



## □ METHODOLOGY AND WORKING

- We saw the bicycle with dynamo which produces current while bicycle running and the bicycle headlight becomes active. But 12 volt dynamo not enough to charge battery. We are used same method with motor generator.
  - When we run bicycle the front motor generator also rotates and produces 0-40 volts at 0-2600 rpm.
  - The produced current transferred to battery and battery becomes charging. After battery fully charged the battery indicator light becomes red.
  - After pressing motor switch the battery gives the current to the motor And bicycle continues the running. With the help of throttle we can control cycle speed.
  - Bicycle can run up to 25-30 km with fully charged battery.
- Now the interesting part is when motor runs bicycle the generator also rotates and produces current. Then it charges battery and because of this process bicycle can run extra 10 km.
- But using this method bicycle can't run infinite distance because when we convert energy to another form we loose minimum 20% energy.
- So the after 35-40 km the point will come that time the bicycle will stop. hence then we need to run bicycle our self to charge battery again or we can charge battery using other resource.



## □ MOTOR GENERATOR

This is Motor generator

MNS Power 300 Watt Air Cooled DC

Generator 0 to 40V Output

Output Voltage: 0 to 40 Volts DC

Nominal Current 15 Amps, Peak Current  
Amps

Max RPM 2600



We attached this motor generator beside the front wheel with the metal frame. We could add this generator near back motor but problem is the friction and extra load on single tyre so we added this generator beside front tyre.

## □ MOTOR CONTROLLER

A **Motor Controller** is a device that acts as intermediary between your robot's microcontroller, batteries and **motors**. A **motor controller** is necessary because a microcontroller can usually only provide roughly 0.1 Amps of current whereas most actuators (DC **motors**, DC gear **motors**, servo **motors** etc.) require several



## □ MOBILE CHARGING PORT

We added this feature to those persons who use mobile heavily and always want mobile fully charged. It is also useful to that peoples who do cycling in mountains.





## □ BATTERY

We are using 24 volt 30 Ah battery. We can use More current capacity battery for extra mileage. The size of battery was biggest problem so we chosen battery which is smaller in size. We fitted this battery in the middle of cycle. To attach this BATTERY we made a frame to fit battery to give consistently uniform current without any disturbance.





## □MOTOR

The Main and important part of this project is motor. Low torque and less RPM means we can't run bicycle. So we used 24 volt 250 watt gear DC motor. Which can give us 2600 rpm. Gear motors runs perfectly with heavy load.

We attached this motor beside the back tyre using metal frame. The motor and bearing is attached with chain



## □ BICYCLE

We can use any bicycle. bicycle is older or newer doesn't matter. We used our old bicycle rather than new.





## **□ CONSTRUCTION**

The Self Charging E-Bike includes the following parts in its construction:

1. BICYCLE
2. MOTOR
3. BATTERY
4. MOTOR CONTROLLER
5. MOBILE CHARGING PORT
6. MOTOR GENERATOR
7. CHAIN
8. BEARING
9. RECTIFIER



## ➤ INTRODUCTION :

- ➔ An electric bicycle, also known as an e-bike, power bike or booster bike, is a bicycle with a rechargeable battery and the lighter varieties can travel up to 25 to 32 km/h (16 to 20 mph), while the more high-powered varieties can often do in excess of 45 km/h (28 mph).
- ➔ The price of electrical bicycle is 45000 rs but they are not self charging E-bikes. Means we no need to charge them. but we made self charging e-bike. It will charge itself.
- ➔ And we can charge mobile phones also. We can convert normal bicycle into Self Charging E-bike.



श्री स्वामी विवेकानंद शिक्षण संस्था, कोल्हापूर संचलित

पद्मभूषण डॉ. वसंतरावदादा पाटील महाविद्यालय, तासगाव

जि. सांगली

वसंताविष्कार

प्रमाणपत्र

Patil Amol Krishnat

श्री. / श्रीमती / कु. / प्रा. / डॉ.

P.D.V.P. College Tassar.

गंणी महाविद्यालयाने अग्रणी महाविद्यालय योजनेअंतर्गत दि. २१/१२/२०१७ रोजी आयोजित केलेल्या

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स्थळ : तासगाव

दिनांक : २१ डिसेंबर, २०१७

प्रा. डॉ. ए.आर. जाधव

प्राचार्य

वसंताविष्कार संशोधन पोस्टर स्पर्धा

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समन्वयक

अग्रणी महाविद्यालय यांत्रना

Patil

प्रा. डॉ. आर. आर. कुंभार

प्राचार्य



"ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षणप्रसार." - शिक्षणहवी डॉ. बापूजी साळुंके

श्री स्वामी विवेकानंद शिक्षण संस्था, कोल्हापूर संचालित

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जि. सांगली

**वसंताविष्कार**

**प्रमाणपत्र**

श्री. / श्रीमती / कु. / प्रा. / डॉ. अनिल शिवाजी शिंदे

यांनी महाविद्यालयाने अग्रणी महाविद्यालय योजनेअंतर्गत दि. २१/१२/२०१७ रोजी आयोजित केलेल्या "वसंताविष्कार" या संशोधनवर आधारित स्पर्धेत \_\_\_\_\_ क्रमांक / सक्रीय सहभाग / मिळविला / घेतला. त्याबद्दल त्यांना हे प्रमाणपत्र देण्यात येत आहे.

स्थळ : तासगाव

दिनांक : २१ डिसेंबर, २०१७

प्रा. डॉ. एस्. आर. जाधव

प्रमुख  
वसंताविष्कार संशोधन पोस्टर स्पर्धा

प्रा. डॉ. एस्. पाटील

समन्वयक  
अग्रणी महाविद्यालय योजना

प्रा. डॉ. आर. कुंगार

प्राचार्य







"ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षणप्रसार." - शिक्षणमहर्षी डॉ. बापूजी साबुळे



श्री स्वामी विवेकानंद शिक्षण संस्था, कोल्हापूर संचालित

**पद्मभूषण डॉ. वसंतरावदादा पाटील महाविद्यालय, तासगाव**

जि. सांगली

## वसंताविष्कार

### प्रमाणपत्र

Lugade Nehikya X.

श्री. / श्रीमती / कु. / प्रा. / डॉ.

P.D.V.P. College, Tasgaon.

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प्रमुख

वसंताविष्कार संशोधन पोस्टर स्पर्धा

*Patil*

प्रा. के. एस. पाटील

समन्वयक

अग्रणी महाविद्यालय योजना

*Pr*

प्रा. डॉ. आर. आर. कुंभार

प्राचार्य

A

Major Project On

“Real Estate Manegment”

SUBMITTED

TO

“SHIVAJI UNIVERSITY, KOLHAPUR”

IN PARTIAL FULFILMENT OF THE REQUIREMENT OF THE DEGREE  
BACHELOR OF SCIENCE (B.Sc. III) SEMISTER – VI

SUBMITTED BY

**Mr.Shendage Rushikesh Ravindra.**

**Mr.Rohit Suryakant Pawar.**

UNDER THE GUIDANCE OF

**Miss.S.V.Patil.**

THROUGH

THE PRINCIPAL

PADMABHUSHAN DR. VASANTRAODADA PATIL MAHAVIDYALAY, TASGAON

2020-21

Shri Swami Vivekanand Shikshan  
Santha's

PADMABHUSHAN DR.VASANTRAODADA PATIL MAHAVIDYALAYA, TASGAON.



This is to certify that

Mr.Shendage Rushikesh Ravindra.

Mr.Pawar Rohit Suryakant.

Have completed the necessary project on "Real Estate Mangement", in a satisfactory manner as a partial fulfillment of the requirement of the B.Sc.III, SEM-VI of Shivaji University Kolhapur in academic year 2020-2021

We therefore approve the same and wish them all the best in their future career and bright success at every step in their life.

Date :

Place : Tasgaon

**Examiner**

**Head of Department**

**Principal**

**Guide**

**(Prof V.T.Kumbar)**

**(Dr.Milind Hujre)**

**(Miss.S.V.Patil)**



Shri Swami Vivekanand Shikshan Santha's

PADMABHUSHAN DR.VASANTRAODADA PATIL MAHAVIDYALAYA, TASGAON

**GUIDE CERTIFICATE**

This is to certify that,

**Mr.Shendage Rushikesh Ravindra.**

**Mr.Rohit Suryakant Pawar.**

Have completed the necessary project on "Real Estate Manegment", in a satisfactory manner as a partial fulfillment of the requirement of the B.Sc.III, SEM-VI of Shivaji University, Kolhapur in academic year 2020-2021

We therefore approve the same and wish them all the best in their future career and bright success at every step in their life.

**Date :**

**Place : Tasgaon**

**Guide**

**(Miss.S.V.Patil.)**

## DECLARATION

To,

The Principal,

Padmabhushan Dr. Vasantodada Patil Mahavidyalaya,

Tasgaon, Sangli.

Respected Sir/Madam,

We hereby declare that this report is original in all aspects and the facts prescribed there are true and not copied from any other project report.

If proved otherwise, we will solely responsible for the consequences arising there from.

**Date:**

**Place: Tasgaon**

**Signature:**

**Mr.Shendage Rushikesh Ravindra.B.Sc III(Sem -VI)**

**Mr.Rohit Suryakant Pawar.B.ScIII(Sem-VI)**

## ACKNOWLEDGEMENT

This is a great opportunity to acknowledge and to thank all those persons without whose support and help this project would have been impossible. We would like to add a few heartfelt words for the people who were part of this project in numerous ways.

We would like to thank to our project guide Miss S.V.Patil, for their indefatigable guidance, valuable suggestion, moral support, constant encouragement and contribution of time for the successful completion of project work. We are very grateful to all teaching staff also for providing all the facilities needed during the project development. At the outset, we sincerely thank all faculty members of our college for their extra effort to make our session online inspire of all ideas.

The words are not enough to express our thanks to the Miss S.V.Patil, Head of B.Sc (Computer Science) Department Padmabhushan Dr. Vasantodada Patil Mahavidyalaya, Tasgaon for this constant motivation and encouragement during the investigation. We record our hearty and grateful thanks to all our friends for giving us a valuable guidance, information about this system. Last but not the least, we would like to acknowledge the ongoing support of our parents and family members, whose patience and encouragement during these long days and night have been

paramount in making this project reality.

**Thanking You,**

**Mr.Shendage Rushikesh Ravindra.B.Sc III(Sem -VI)**

**Mr.Rohit Suryakant Pawar.B.ScIII(Sem-VI)**



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# Chapter I



# Introduction

- **Introduction:**

“**Estate Management System**” application works as a Desktop Application for real estate classified system where admin can add property details (like Flat, Hall, Land)and personal details. These windows coded with C#.net and information stored into SQL server 2008. Various properties are available for selling or buying in this application. From this application property dealing is easy to sell and buy for each person.

In this project “**Estate Management System**” the manual system is converted in to computerized system .The advantage of this system is, there is no chance of loss of any data also, there is no chance of mistake.

Property holder visit to brokers office and register his property to give on rent or on sell .The brokers stores the information about property like area, type, description etc. Brokers also store information about property holder. When buyers visit the broker offices, He will give his information to admin such as, area, type his budget etc. Then buyer will choose the property. If property holder wants to give the property on rent then broker takes 5% commission from both sides. If the property holder wants to sell his property then broker takes 2% commission from both sides.



## **1.2 Existing System:**

In this system, property holder visits to the broker's office and register his property to give on rent or to sell. Broker stores the personal information about property holder. The broker also stores the information about the property like address, type, cost etc. Broker also stores the personal information about property holder.

When buyer visits the broker's office, he will give his requirements such as, area, type, his budget etc. to broker then broker will check into his multiple registers and give corresponding information to him. Then buyer will choose the property.

If the property holder wants to give the property on rent then broker takes 5% commission from both sides. If the property holder wants to sale his property then broker takes 2% commission from both sides.

Problems occurring in manual system:

1. It generates lots of problems because it is not possible to look in number of registers for specific data.
2. Lengthy and time consuming process.
3. If by mistake or accidently any register is lost then it is difficult to search data and generate report.

- **Scope of System:**

In this project “**Estate Management System**” various properties are available for selling or buying properties in this application. Every record is stored in computer so, there is less chance of lost any data. Once, this software developed any company or any broker can buy and use this software in their system. Using this software all the payment calculation and record of any property of payment become easy to handle.

If any property is registered then it is by default available for rent or sale but if deal for that property is fixed then it is not available. And this we do in this project. As we know this project is windows based so, this system can be only useful in particular area.

If property holder wants to give the property on rent then broker takes 5% commission from both sides. If the property holder wants to sell his property then broker takes 2% commission from both sides. And all this calculations are performed correctly in this project.

## **1.4 Organization Profile:**

Name: Thorbole Constructor and Engineer.

Address: Near Hatkeshwar Mandir, Tasgaon.

Tal.Tasgaon Dist: Sangli

Pin Code-416312

Thorbole Constructor and Engineer, Ltd Tasgaon is a one of best construction company in Tasgaon. Hon. Dattatray B. Thorbole is founder and chairman of this Construction Company.

Main purpose of this company to sale or buy the property i.e. Land , Flat , Banglow various properties are available for selling or buying in this company. Property dealing is easy to sell and buy for each person.



# Chapter II



# Proposed System

## **2.1 Proposed System:**

In our project “**Estate Management System**” the manual system is converted into computerized system. In order to reduce time consumption and human effort, the “**Estate management system**” can be applied in broker’s office where manual procedure is exists.

This system provide user friendly interface as well. In computerized system when any purchase or sell is done then the stock updates automatically. The advantage of our system is, there is no chance of loss of any data also, there is no chance of mistake and bills are calculated correctly.

## **2.2 Objective:**

- The main objective of this system is facility to buy, sell or rent property.
- Admin identify proper type as it is residential or commercial property.
- It’s a limited system and least user friendly.
- The only admin have all authority.
- The admin should maintain property.

## 2.3 Requirement Engineering:

### **Requirements Gathering:**

A requirement gathering is a process of collecting information about software requirements from different individuals, such as users and other stakeholders. Stakeholders are individuals who are affected by the system, directly or indirectly. They include project managers, marketing personal, consultants, software engineers, maintenance engineers and user.

Various issues may arise during requirement gathering and may cause difficulties in understanding the software requirements. Some of the problems are discussed as follows:

- **Problems of scope:** This problem arises when the boundary of software is not defined properly. Due to this, it becomes difficult to identify objectives as well as functions and features to be accomplished in software.
- **Problems of understanding:** This problem arises when users are not certain about their requirements and thus are unable to express what they require in software and which requirements are feasible. This problem also arises when users have no or little knowledge of the problem domain and are unable to understand the limitations of the computing environment of software.
- **Problems of volatility:** This problem arises when requirements change over time. There are various traditional and modern methods for gathering requirements, which facilitate a software engineer to understand user requirements and software requirement needed to develop the proposed software.



## **2.4 Requirement Gathering:**

This methods of requirement gathering include interviewing, questionnaire, on site observation, record review, quality function deployment, etc. We will discuss some of the widely used methods here.

**1. Interviewing:** It is conventional way of gathering requirements, which help software engineers, users and software development team to understand the problem and suggest solutions for it. When interview is conducted, rules are established for users and other stakeholders. An effective interview should have the following characteristics:

- Individuals involved in interviews should be able to accept new ideas. Also, they should focus on listening to the views of stakeholders related to requirements and avoid biased views.
- Interviews should be conducted in defined context of requirements rather than in general terms. For this, user should start with a question or a requirement proposal.

**2. Questionnaire:** Questionnaire is an effective tool of gathering requirements. It produces a written document. The major advantage of questionnaire is that it requires less effort and gathers information from many users in a very short time. In this method, preparing right and effective questionnaires is the critical issue. This is because different users work with different parts of the system and have knowledge of that part only. Thus the single questionnaire is not appropriate for all the users. The analyst must prepare different sets of questionnaires for different group of users.

**3. On-site observation:** Generally, users are not able to express the process of how they work. Thus, to have a close look of the system, analyst must decide to perform the site visit. Site visit enables the analyst to observe the current system, helping him to detect the problems of existing

## **2.5 SRS (Software Requirement Specification)**

The output of the requirements phase of a software development process is the software requirement specification (SRS) document, also known as requirements document. This document lays a foundation for software engineering activities and is created when entire requirements are elicited and analysed. The requirements document includes user requirements for a system as well as detailed specification of the system requirement.

### **Feasibility:-**

Prior to stating whether the system we have to develop is feasible or not we believe that we should emphasize on what is implied by the word “Feasibility”. Feasibility is the measure of how beneficial or practical the development of the system will be to the organization. It is a preliminary survey for the systems investigation. It aims to provide information to facilitate a later in-depth investigation.

The report produced at the end of the feasibility study contains suggestions and reasoned arguments to help management decide whether to commit further resources to the proposed project.

1. To analyses whether or not software will meet organizational requirement.
2. To determine whether or not software can be implemented using the current technology and within the specified budget and schedule.
3. To determine whether Or not software can be software integrated with other existing software.

## **These types are used in feasibility study:**

There are various measures of feasibility that helps to decide whether a particular project is feasible or not. These measures include-

- Operational Feasibility
- Technical Feasibility
- Economical and Financial Feasibility

Each of these types will be explained in detail throughout the project report

- **Operational Feasibility:**

A proposed system is beneficial only if it can be turned into an information system that will meet the operational requirements of an organization. A system often fails if it does not fit within existing operations and if users resist the change.

The whole purpose of computerizing the Placement System is to handle the work much more accurately and efficiently with less time consumption. There will be additional work to be completed, because now the students and the companies can update their resumes and profiles online. Their database is maintained separately.

The new system is more user-friendly, which enables the end-user to complete his/her work efficiently and accurately with interest. After taking the above fact into consideration we can state the operating of the proposed system within the organization is feasible.

In this phase of the feasibility study the following two main topics

- Technical Performance Aspect
- Acceptance within the organization

The new proposed system will affect the users in the following areas

- Accuracy
- Lesser time consuming



- **Technical feasibility:**

Technical feasibility assesses the current source (such as hardware and software) and technology which are required to accomplish in the software within the allocated time budget. For this the software development team ascertains whether the current resource and technology can be upgraded or added in the software to accomplish specified user requirements. Technical feasibility performs the following tasks.

- It analyses the technical skills and capabilities of the member of software development team.
- It determines whether or not the relevant technology is stable and established.
- It ascertains that the technology chosen for software development has large number of users so that they can be consulted when problems arise or improvements are required.

- **Economical and Financial Feasibility:**

In making recommendations a study of the economics of the proposed system should be made. The proposed system must be justifiable in terms of cost and benefit, to ensure that the investment in a new/changed system provide a reasonable return.

Cost-benefit analysis of information is complicated by the fact that many of the systems cost elements are poorly defined and that benefit can often be highly qualitative and subjective in nature.

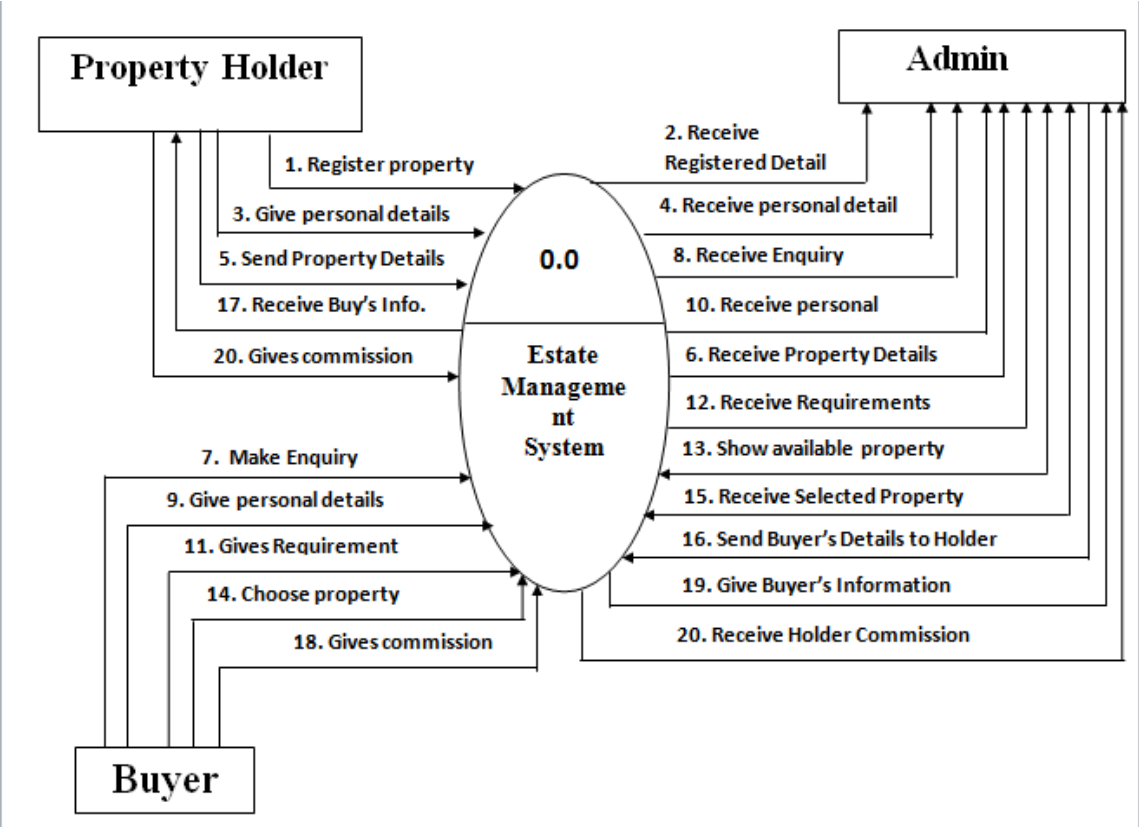
# Chapter III



# System Diagram

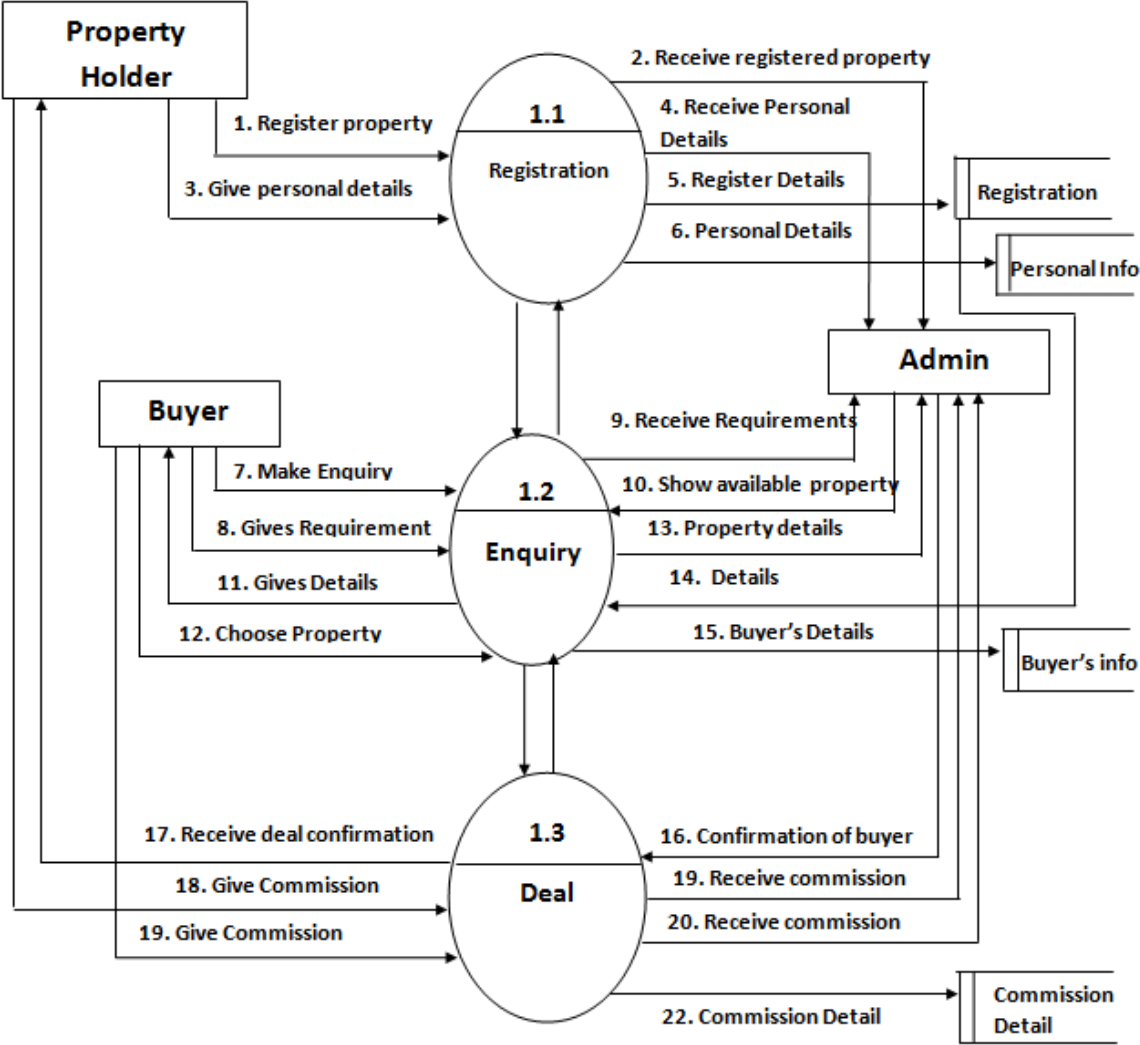
3.1 Data Flow Diagram

Context Level DFD



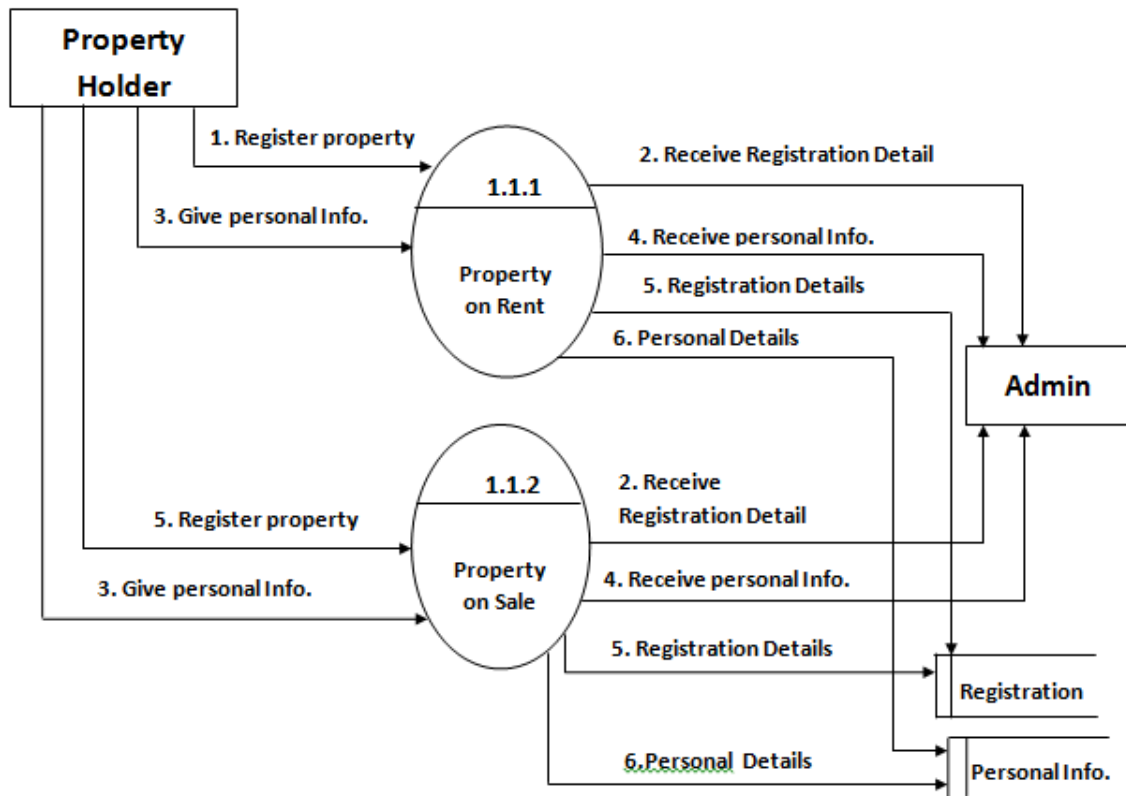


First Level DFD

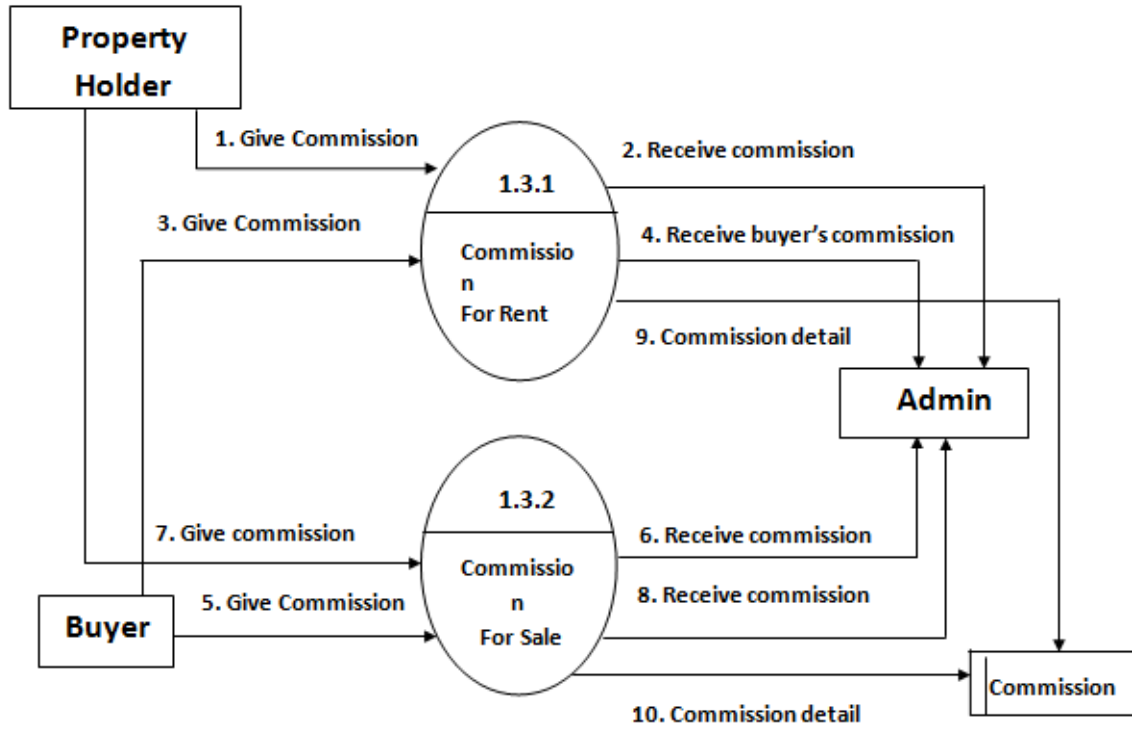


## Second level DFD

For Registration:-

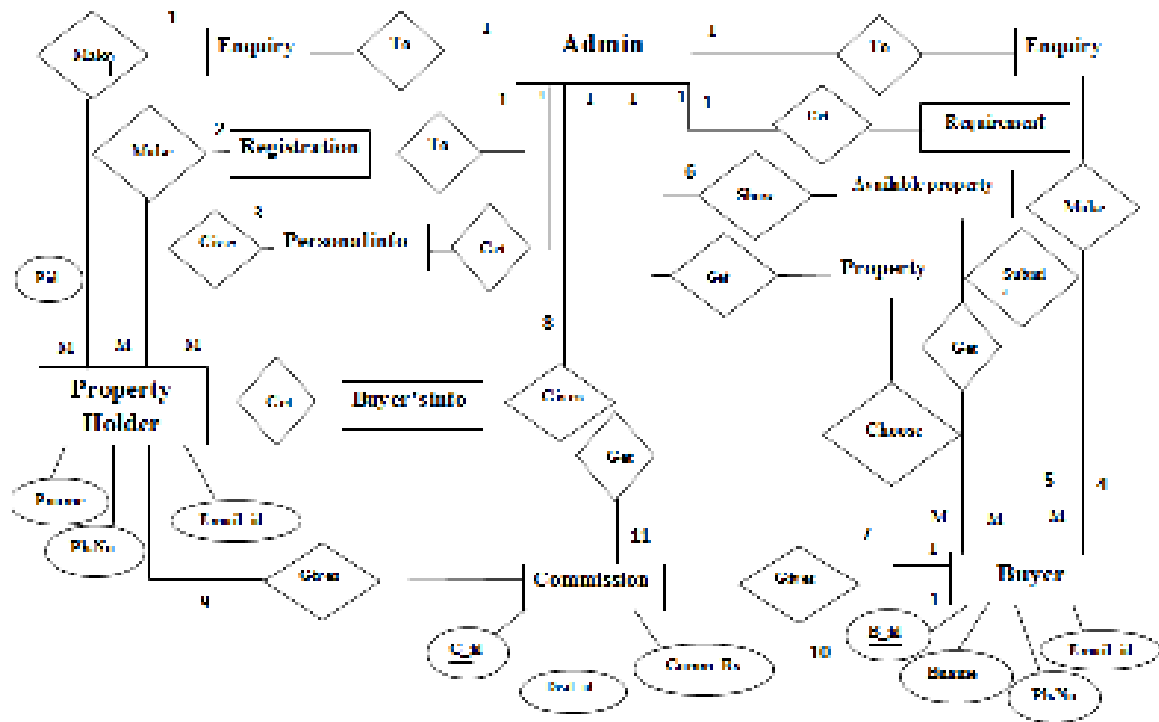


**For Commission:-**





### 3.2 Entity Relationship Diagram



### **3.3 System Requirement**

#### **Software Requirement:-**

- Operating System : Windows XP, Windows 7
- Developing Tool : ASP.Net, SQL Server

#### **Hardware Requirement:-**

- Processor : Pentium IV 2GHz and Above
- RAM : 2GB RAM
- HDD : 40GB or above
- Monitor : 15" Color Monitor
- Keyboard : 108 standard
- Mouse : Optical

# Chapter IV



# System Design



## 4.1 Database Design

### Table Name: Login Table

Description: - To store admin username and password.

Field Name	Data Type	Description
Username	Varchar(20)	To store username
Password	Varchar(20)	To store admin's password

### Master Table:

#### Table Name: Property Type Master

Description: - To store all property Type ID and its Type.

Constraints Keys	Field Name	Data Type	Description
Primary Key	PropertyTypeid	Int	To store unique property type id
-	PropertyType	Varchar(20)	To store type of property(on flat/hall)

#### Table Name: Location Master

Description: - To store all property Location ID and its Name.

Constraints Keys	Field Name	Data Type	Description
Primary Key	LocationId	Int	To store unique Location id
-	Name	Varchar(20)	To store name of location

**Table Name: Property Holder Master****Description: - To store all property Holder ID and his information.**

<b>Constraints Keys</b>	<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>
Primary Key	HolderId	Int	To store unique property holder id
-	Name	Varchar(20)	To store Name of property holder
-	Address	Nvarchar(20)	To store address of property holder
-	PhNo	Number	To store phone number of holder
-	EMailId	Nvarchar(20)	To store Email id of property holder

**Table Name: Buyer Master****Description: - To store all Buyers ID and his information.**

<b>Constraint Keys</b>	<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>
Primary Key	BuyerId	Int	To store unique Buyer id
-	Name	Varchar(20)	To store Name of Buyer
-	Address	Nvarchar(20)	To store address of Buyer
-	PhNo	Number	To store phone number of Buyer
-	EMailId	Nvarchar(20)	To store Email id of Buyer

**Table Name: Property Information Master**

**Description: - To store all property information ID and all information about property like area, type, description etc.**

<b>Constraints Keys</b>	<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>
Primary Key	PropertyInfoId	Int	To store property information id
Foreign Key	LocationId	Int	To store unique Location id
Foreign Key	HolderId	Int	To store unique property holder id
Foreign Key	PropertyTypeId	Int	To store unique property type id
-	PropertyName	Varchar(20)	To store property name
-	ExpectedMoney	Int	To store holder's expected money
-	DealingType	Varchar(20)	To store information about the property on rent or to sell
-	Status	Varchar(20)	To store the status about property
-	Description	Nvarchar(20)	To store the description of area of property e.g. sqft, BHK



**Transaction Table:****Table Name: Buyer's Requirement Details****Description: - To store all buyer requirement detail.**

Constraint Keys	Field Name	Data Type	Description
Primary Key	RequirementId	Int	To store buyer's requirement id
Foreign Key	BuyerId	Int	To store unique Buyer id
Foreign Key	PropertyInfoId	Int	To store property information id
-	Budget	Int	To store budget of buyer
-	DealingType	VarChar(20)	To store dealing type

**Table Name: Deal Details****Description: - To store all Deal details.**

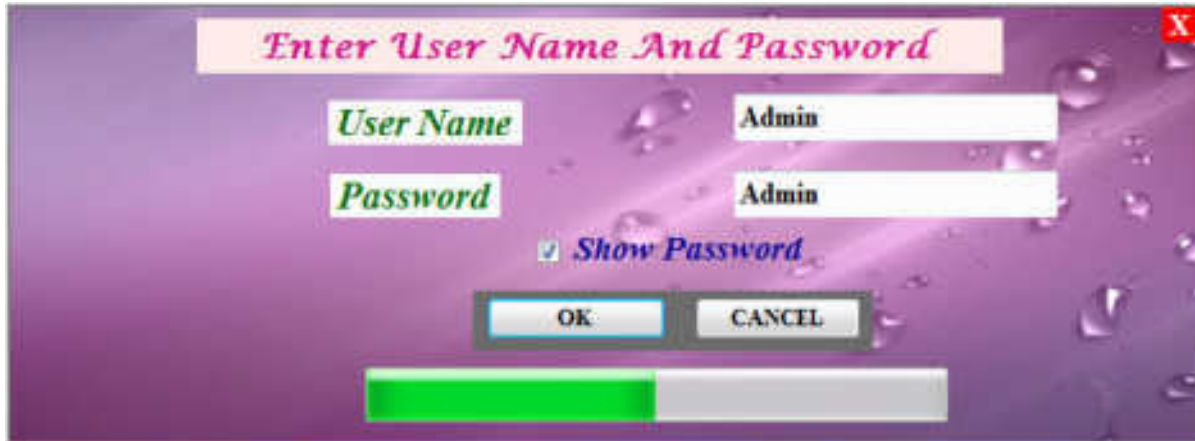
Constraint Keys	Field Name	Data Type	Description
Primary Key	DealId	Int	To store unique Deal id
Foreign Key	BuyerId	Int	To store unique Buyer id
Foreign Key	PropertyInfoId	Int	To store property information id
-	FinalDealingCost	Int	To store final dealing cost
-	Date	DateTime	To Store Date

**Table Name: Commission Details****Description: - To store all commission details.**

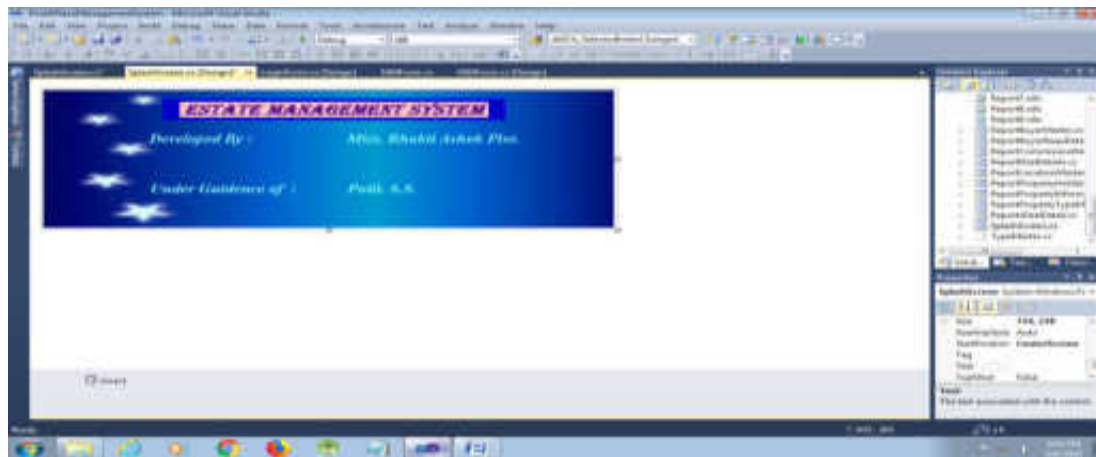
<b>Constraint Keys</b>	<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>
Primary Key	CommissionId	Int	To store unique commission id
Foreign Key	DealId	Int	To store unique Deal id
-	BuyerCommission	Int	To store buyer's commission
-	HolderCommission	Int	To store holder's commission
-	Commission	Int	To store Total commission

## 4.2 Input-Output Design

Login form:

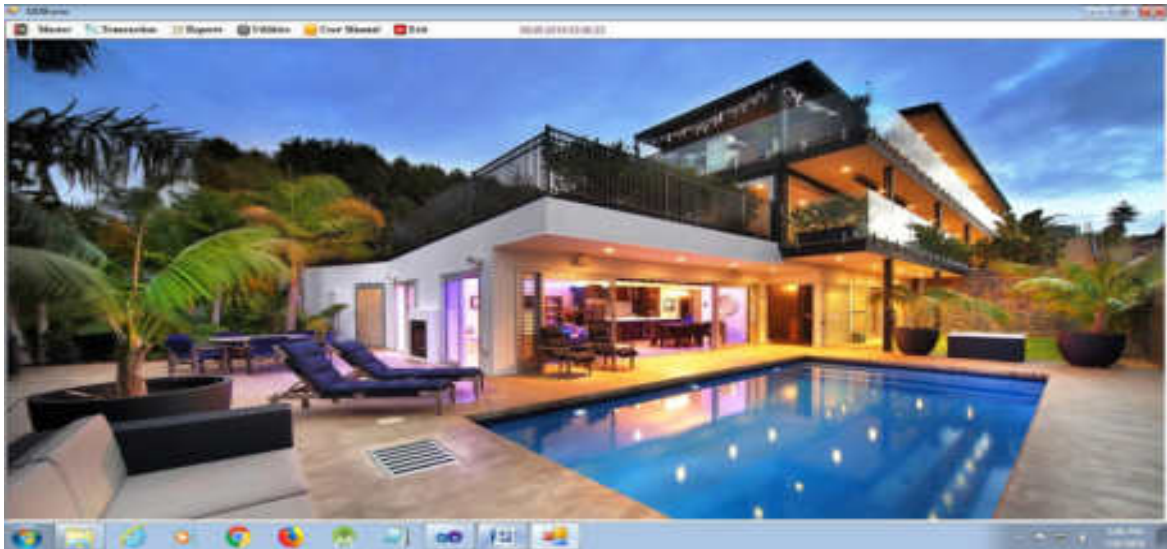


Splash Screen:

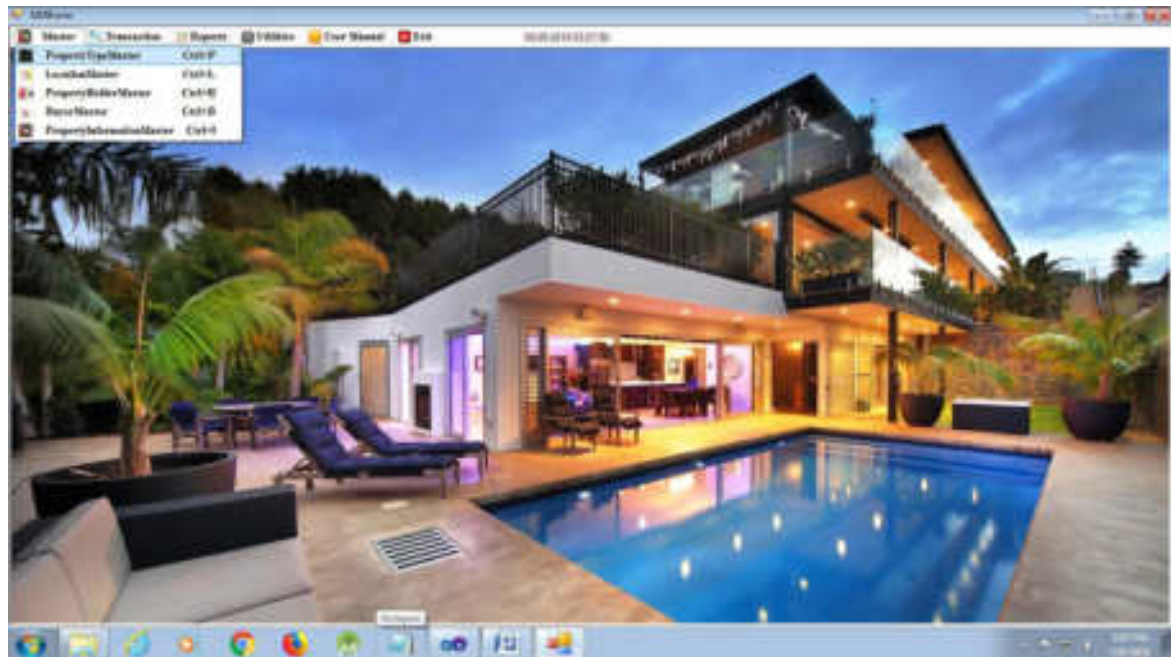




### MDI Forms:



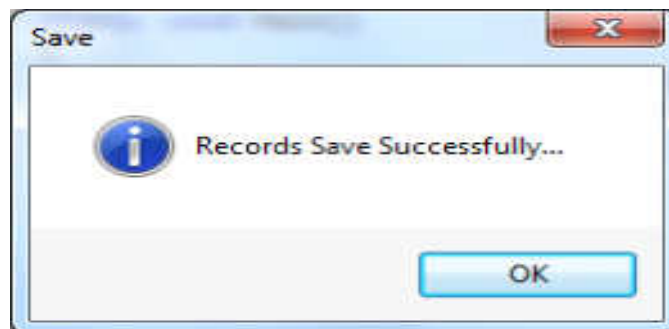
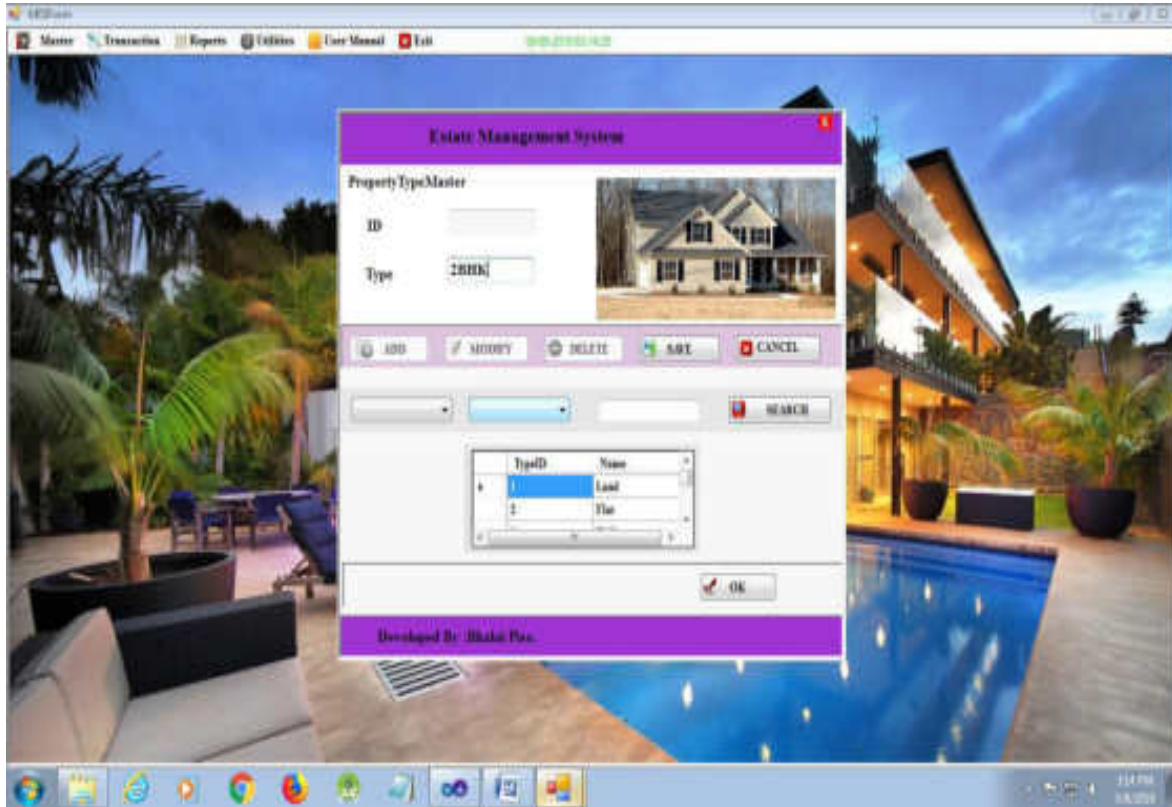
### Master Forms:



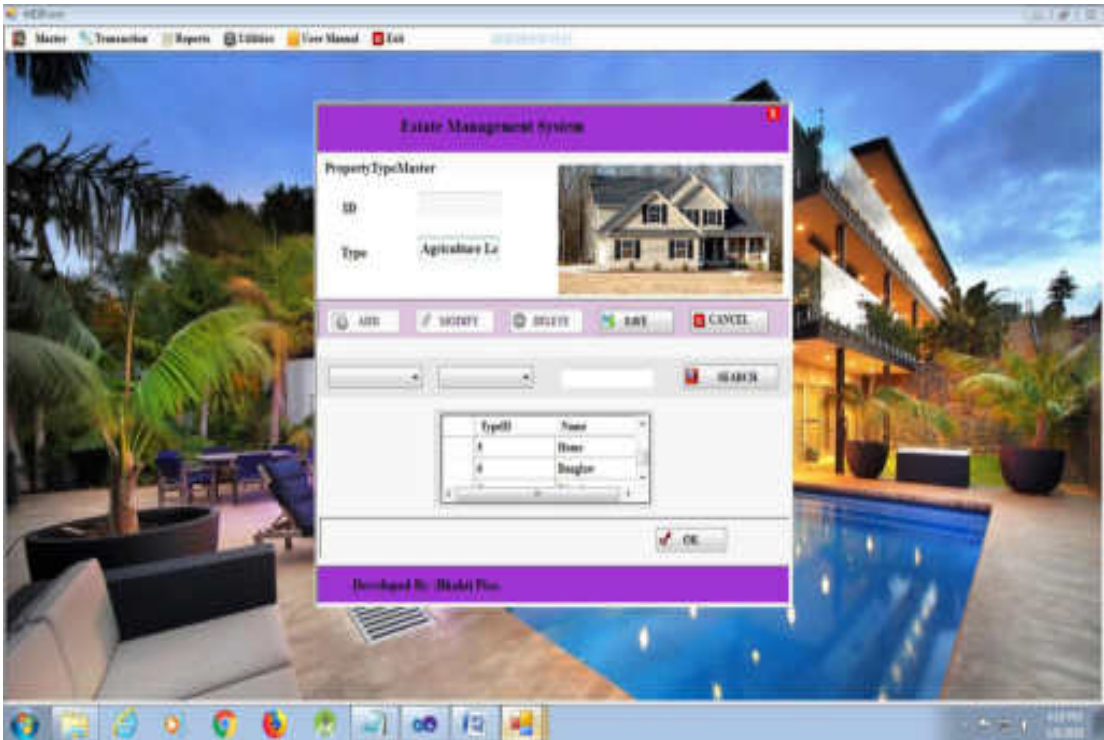
**Master Form:**

**1. Property Type Master:**

**To Save:**

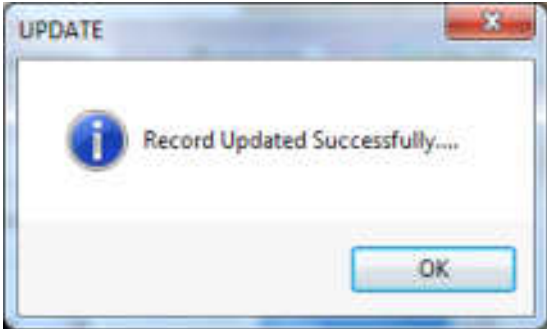
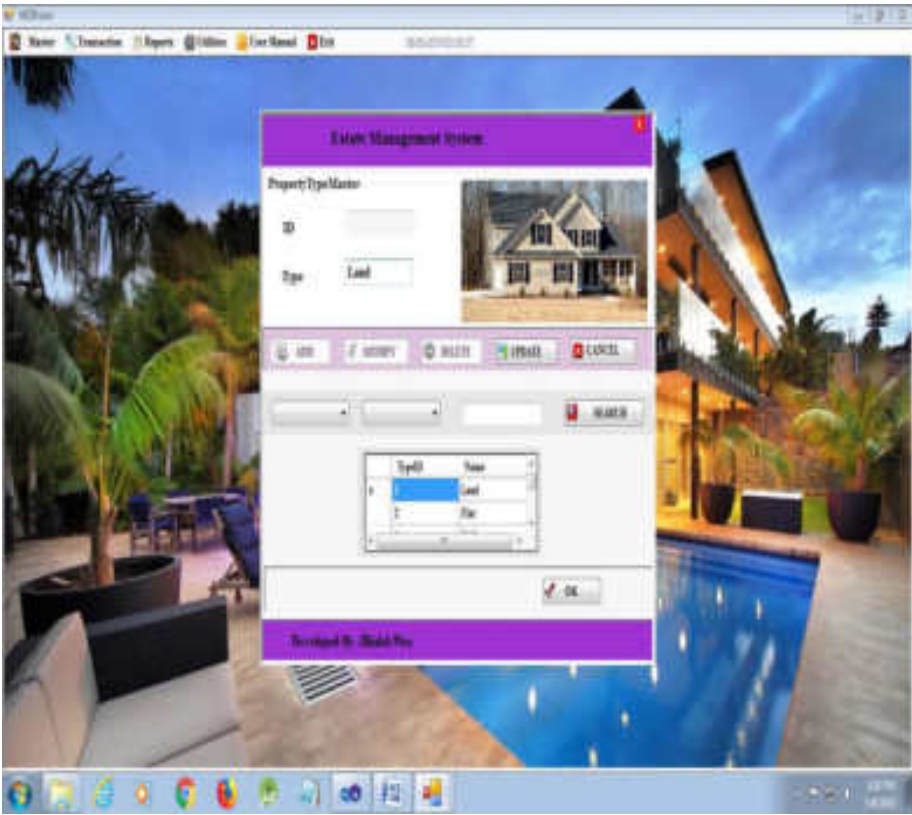


While Inserting Same Record:

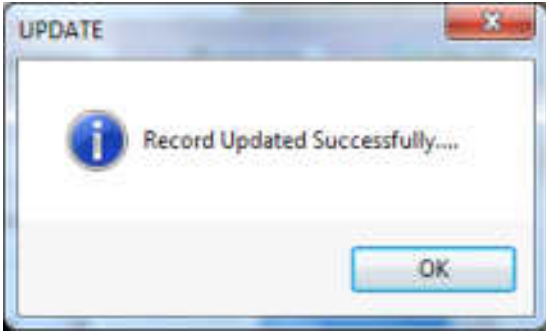
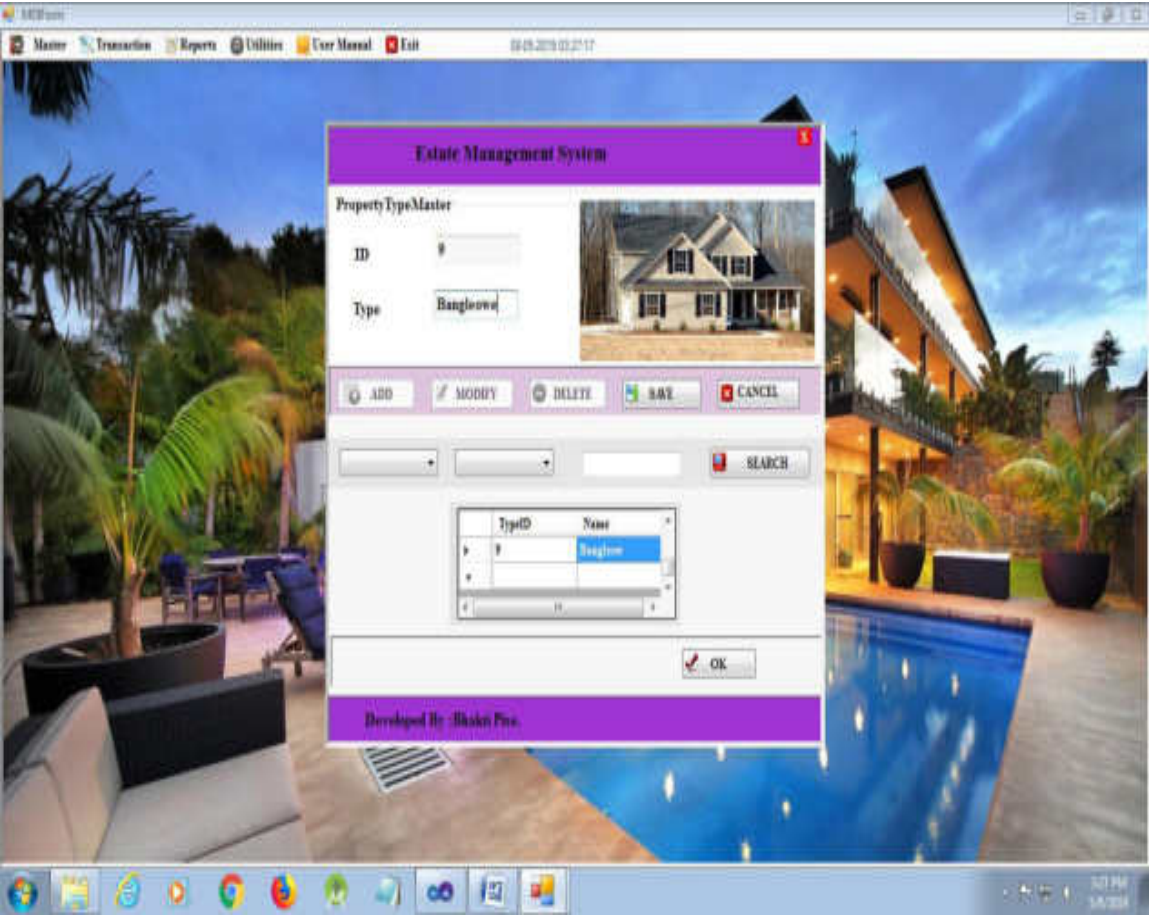




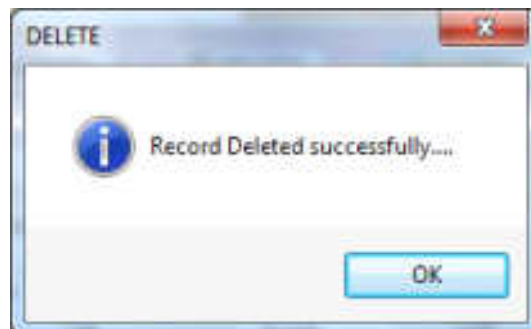
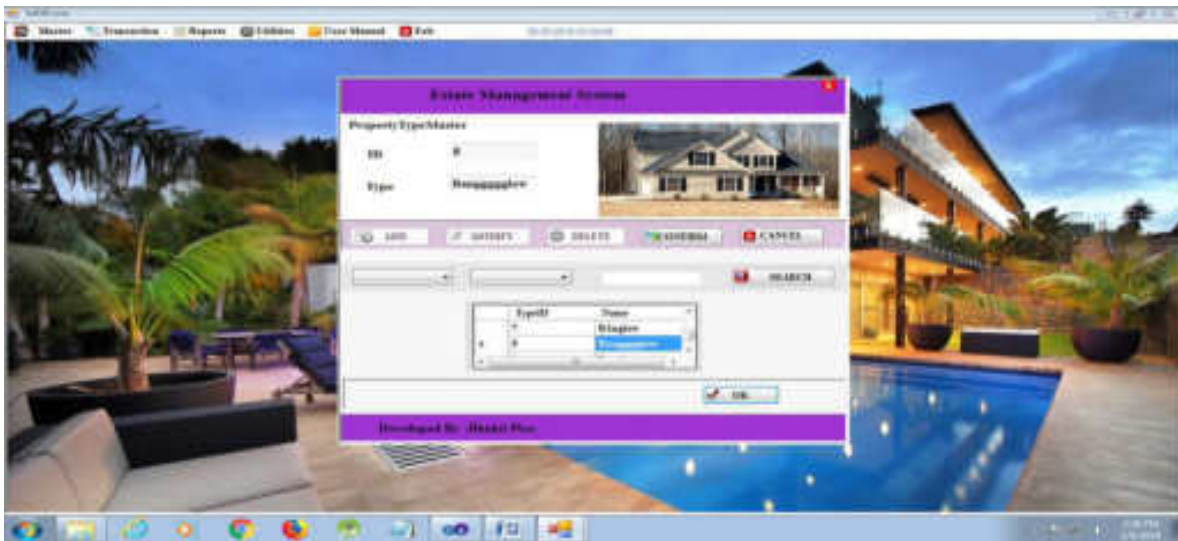
To Modify:



To Update:

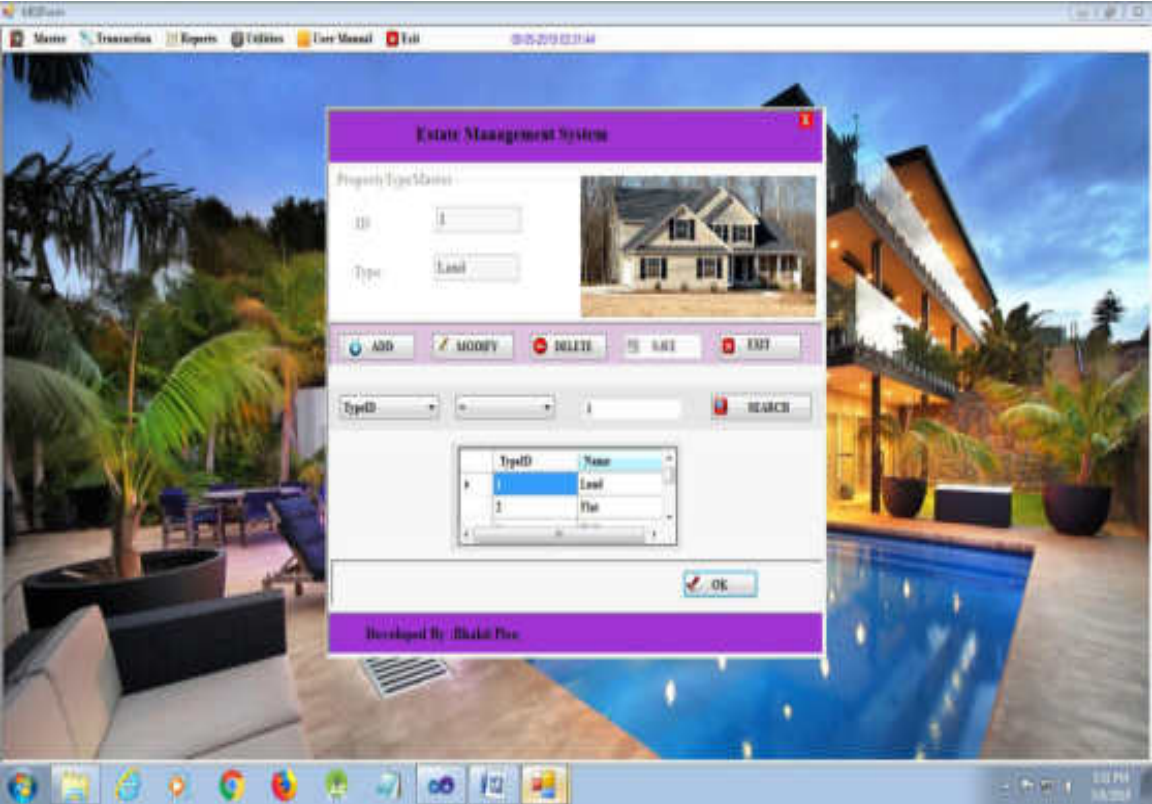
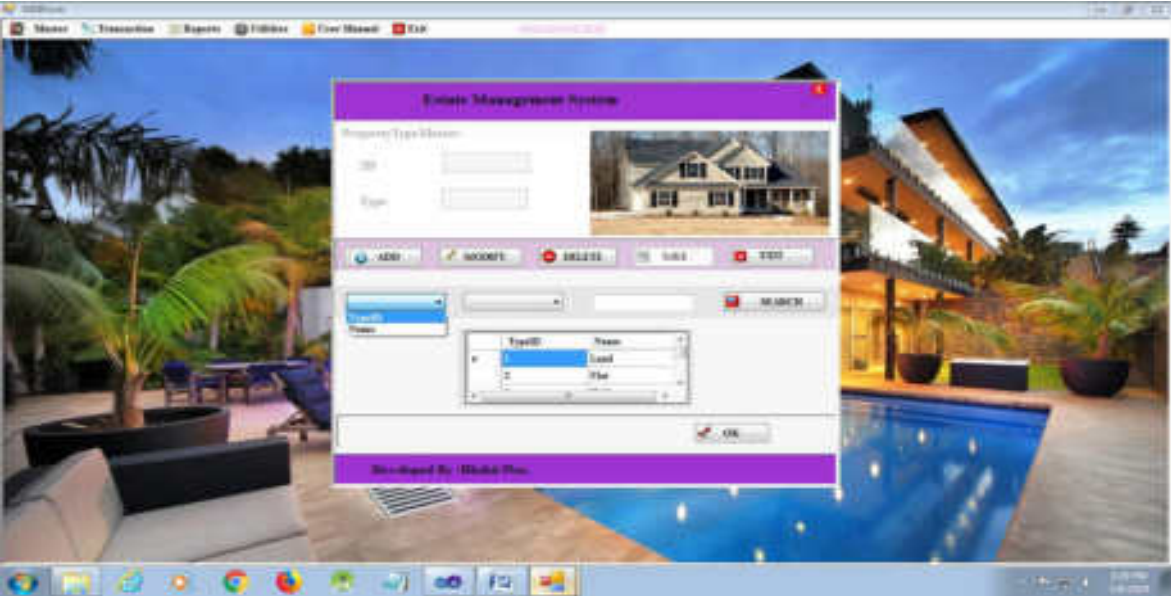


To Delete:

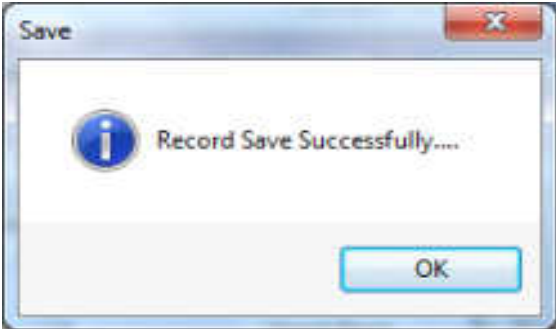
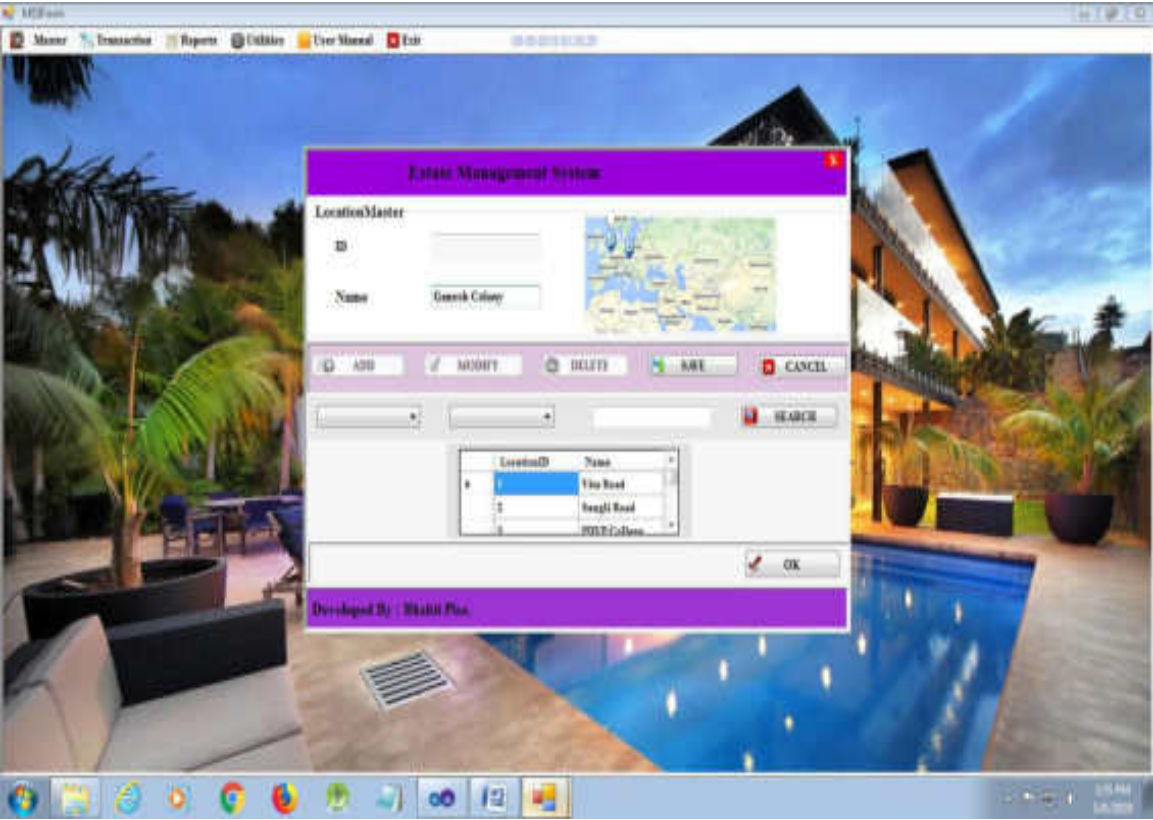




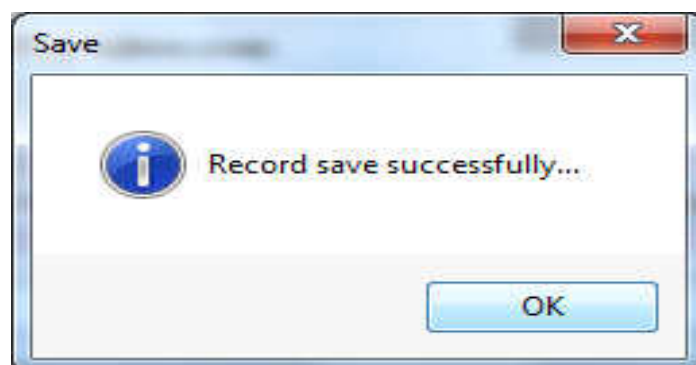
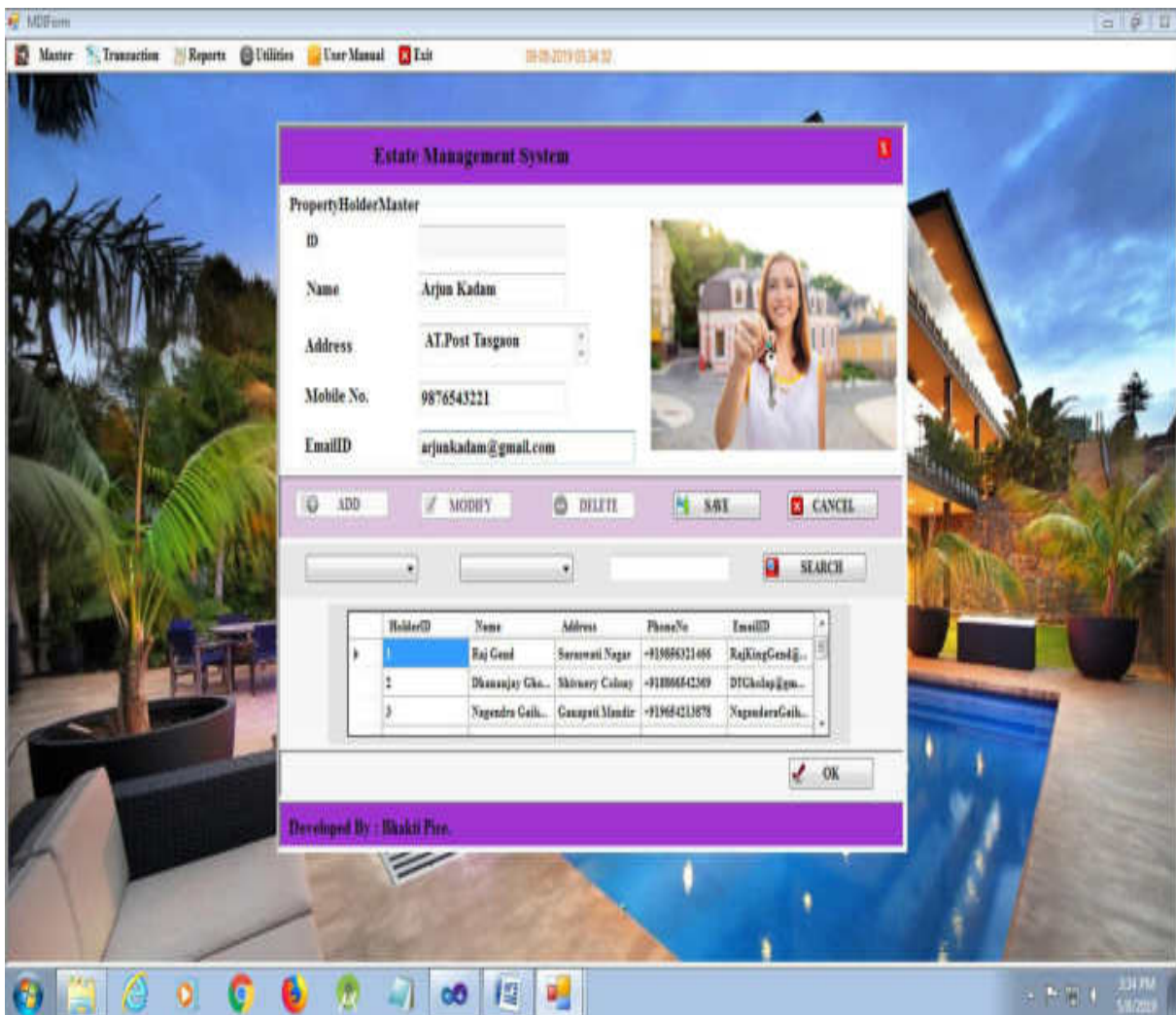
To Searching:



2.Location Master:

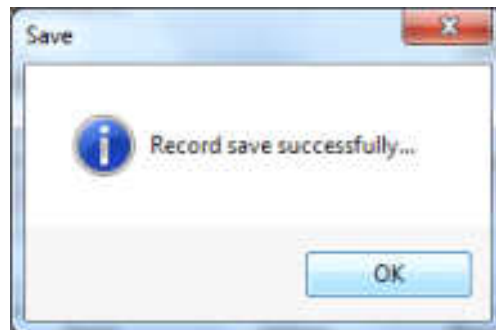
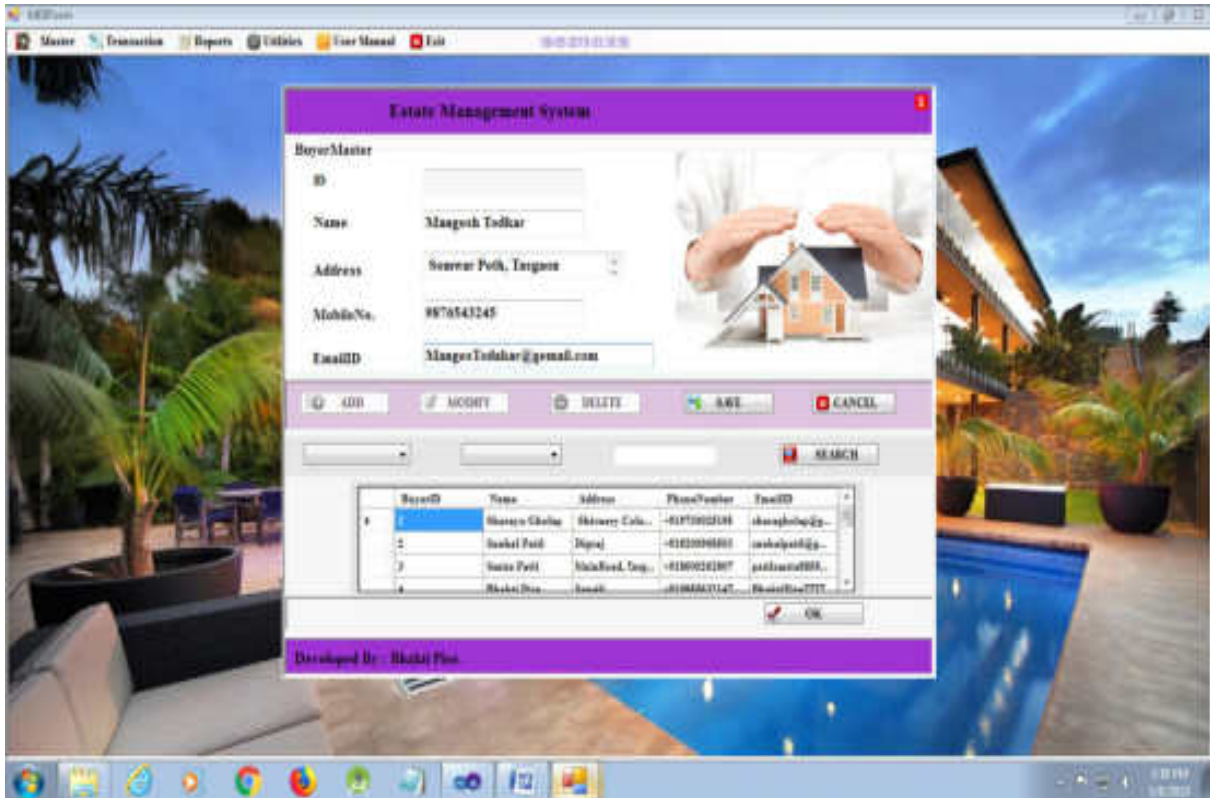


3.Property Holder Master:

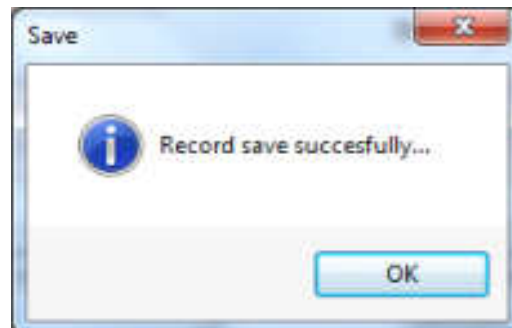
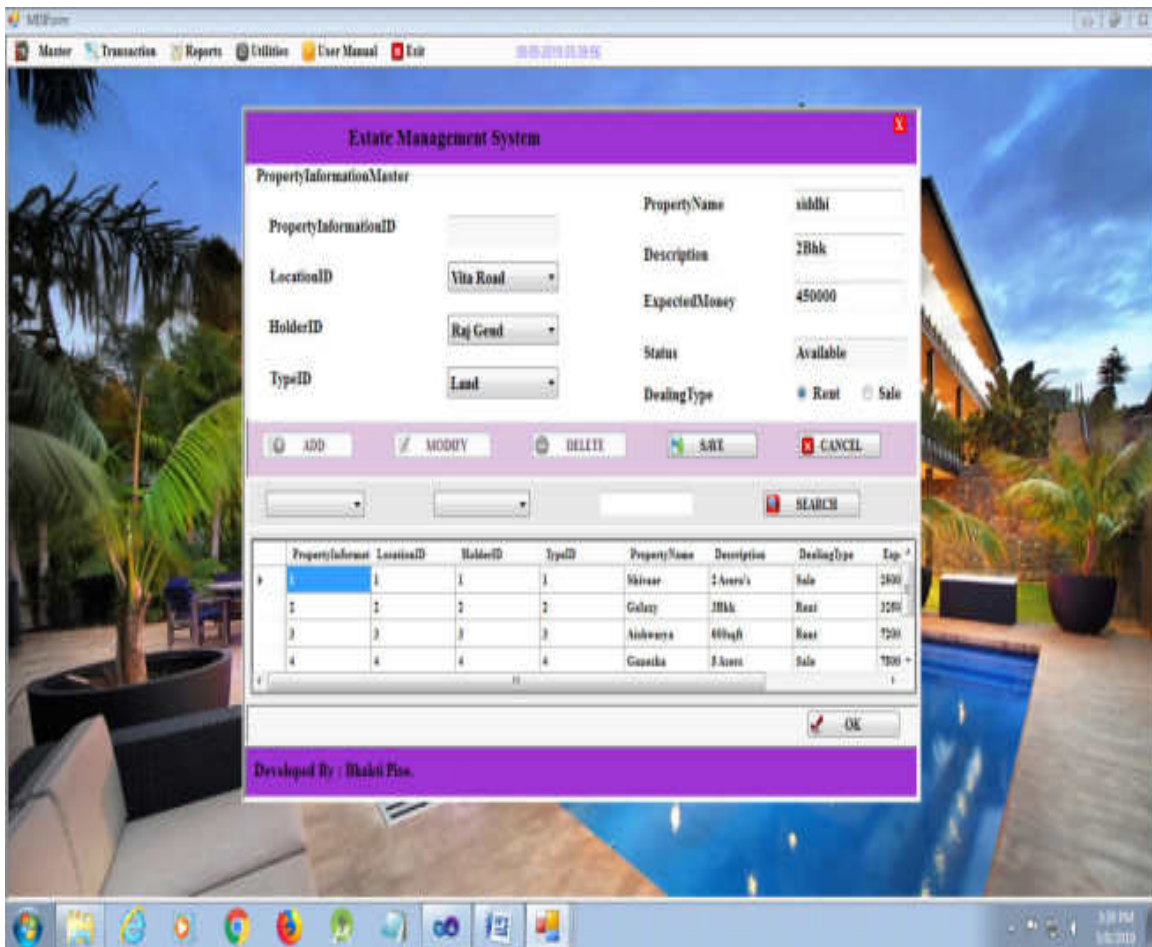


#### 4. Buyer Master:

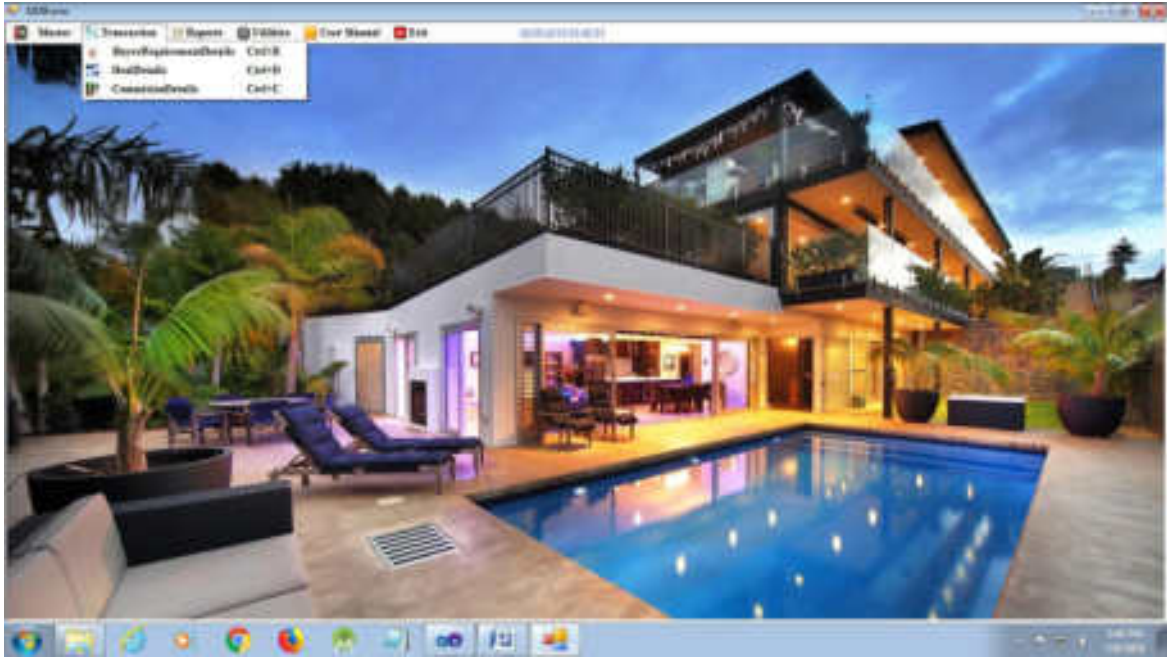




## 5. Property Information Master:



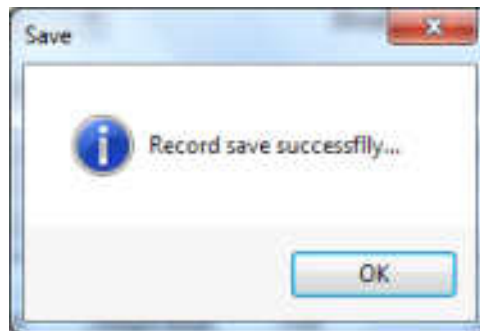
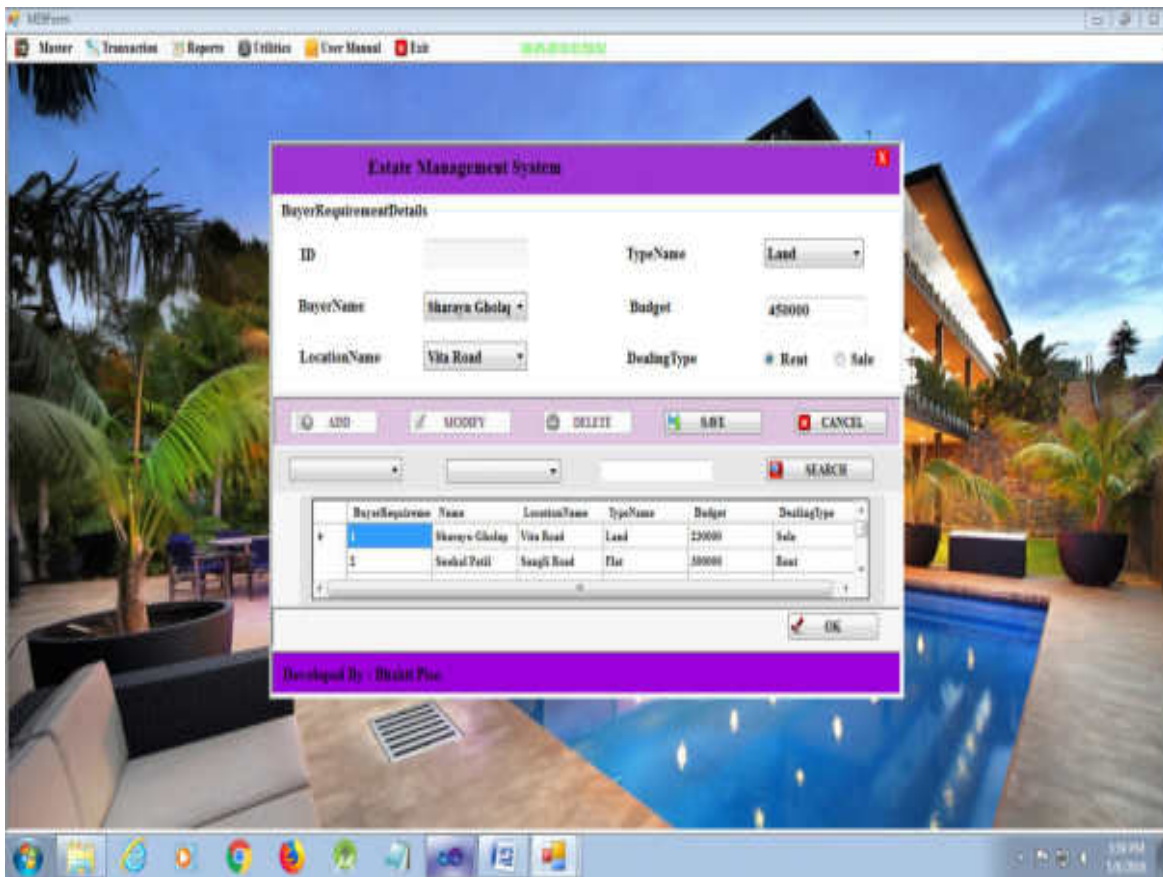
**Transaction Forms:**



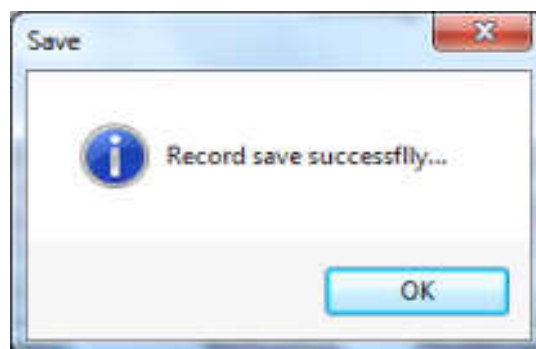
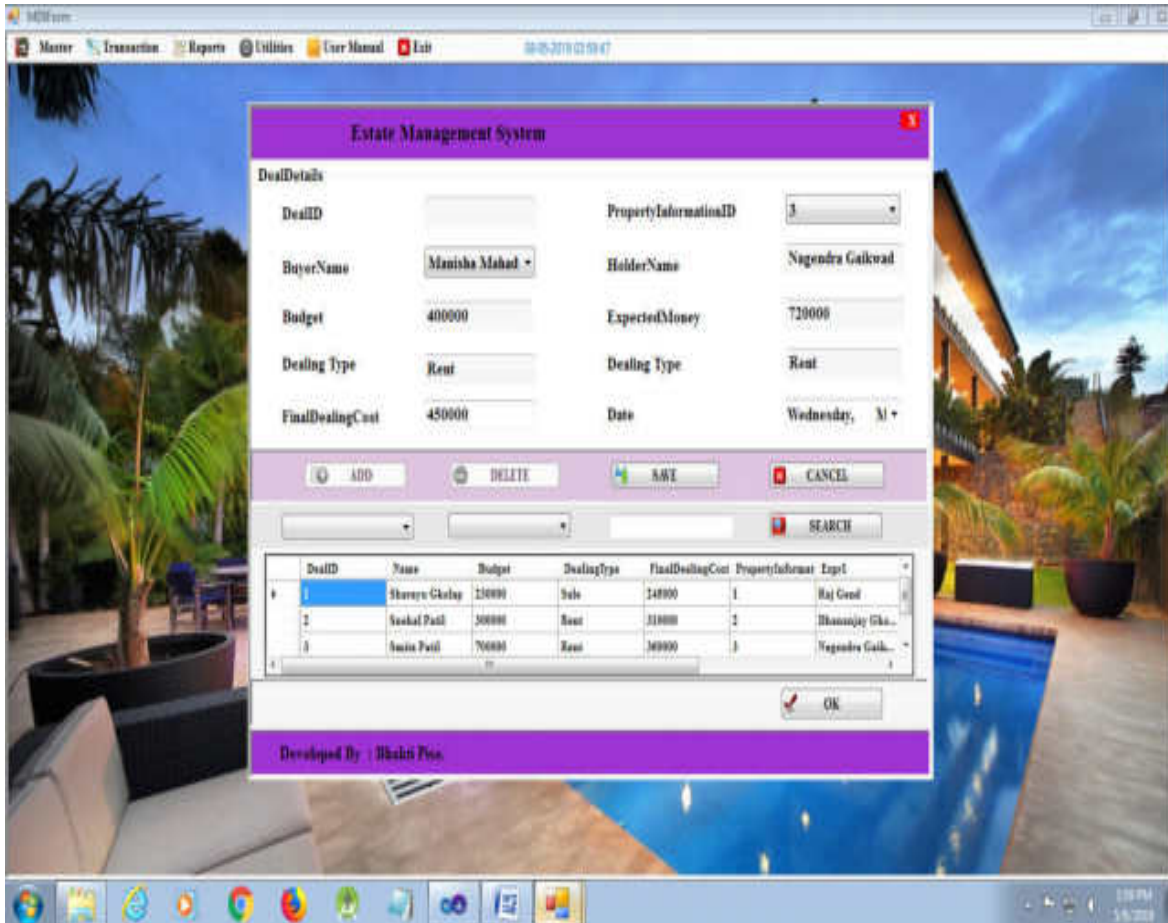
**Transaction Form:**

- **Buyer Requirement Details:**

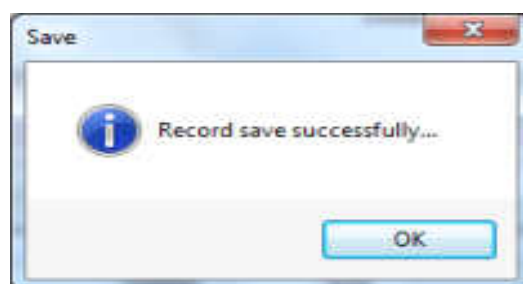
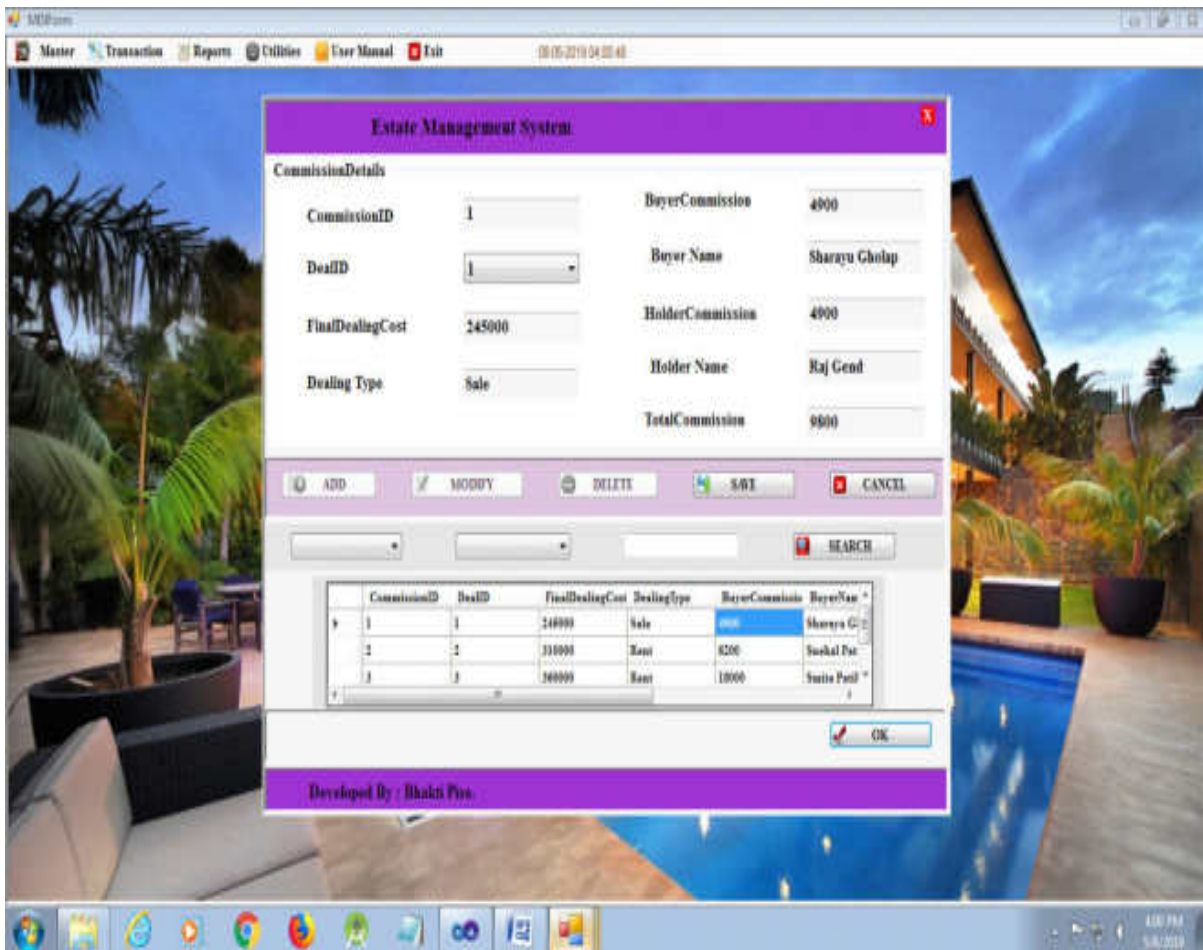




- Deal Details:

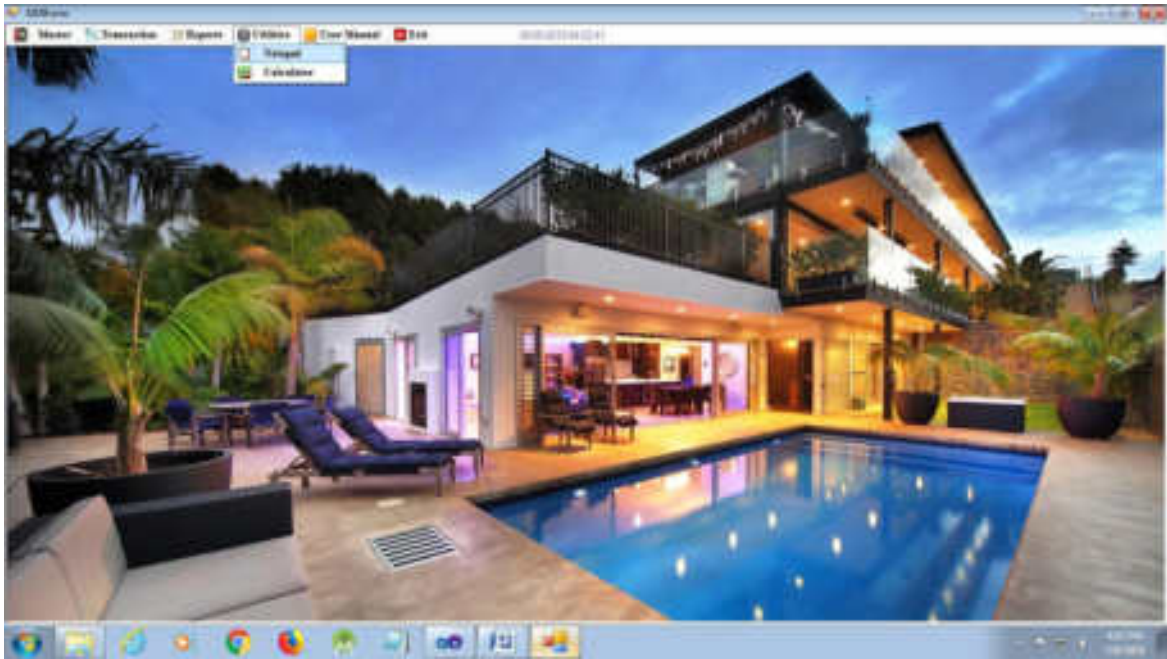


- Commission Details:

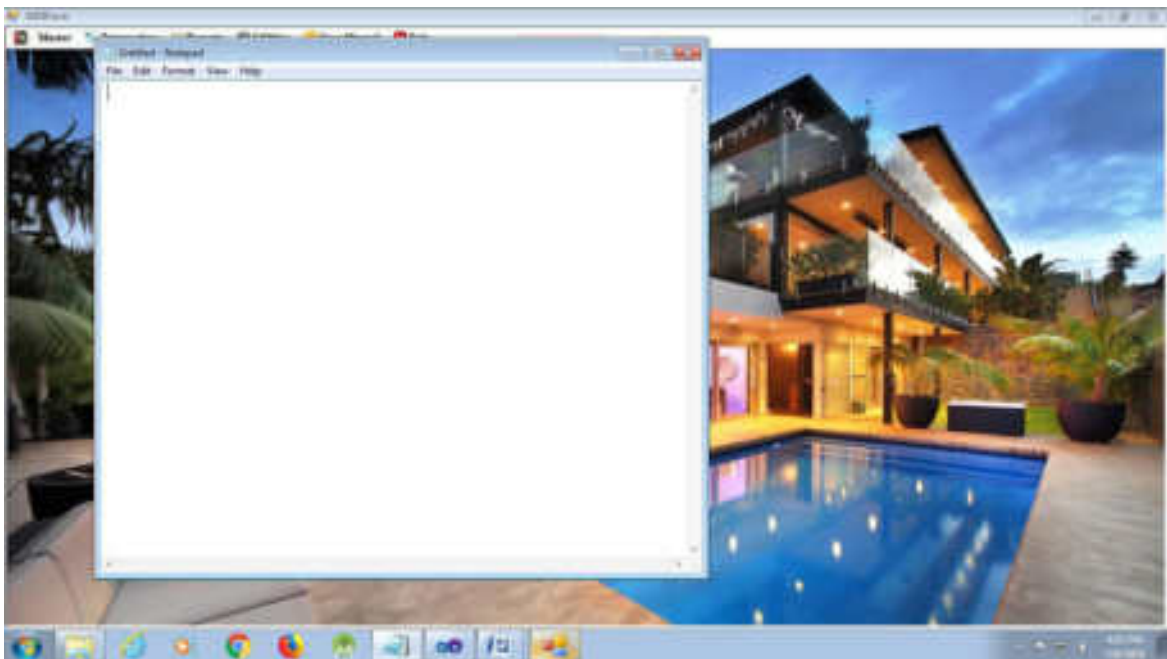


**Utilities:**

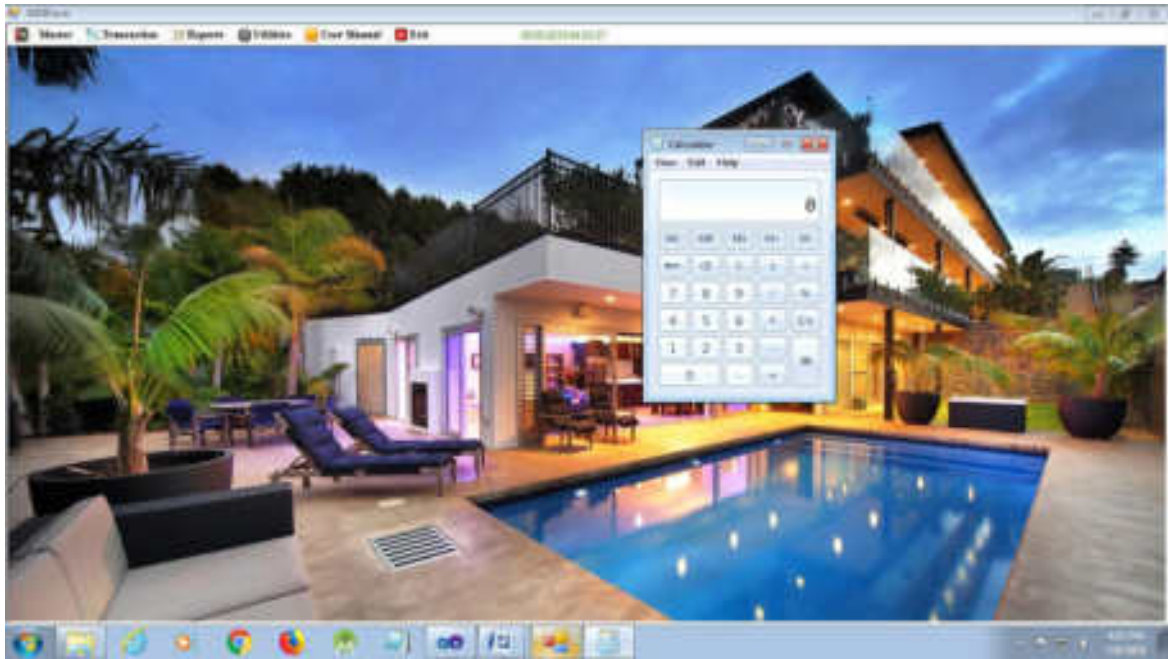




**Notepad:**



**Calculator:**



# Chapter V



# User Guideline

[User Manual](#)



The **Estate Management System** has only one user.

I.e. Broker

So he has different menus to use the system.

The broker is a main user of the system. He has all the rights to do in system. He has following options in his menu.

- **New Record**
- **Transaction**
- **Report's**
- **Utility**
- **System**
- **Help**
- **Exit**

- **New Record**

The New menu has following sub menus:

- New Type:

We can add information of new property type like shop, hall, agricultural land etc. We can also modify and delete record of existing property type.

- New Location:

We can add information of new location. We can also modify and delete record of existing Location

- . New Property Holder:

We can add information of new Property Holder. We can also modify and delete record of existing Property Holder.

- New Buyer:

We can add information of new Buyer. We can also modify and delete record of existing buyer.

- New property information:

We can add information of new property. We can also modify and delete record of existing property.

- **Transaction**

- Buyer's Requirements:

We take the buyer's requirements in this form. .

- Deal Details:

We can store the records of deal in this form.

- Commission:

We can maintain a record of commission received from property holder and the buyer. We can also calculate the total commission of broker under on deal.

- **Utility**

- Calculator:

We can use the calculator.

- Notepad:

We can use notepad.

- **Exit**

It will exit from system.

## **5.1 Installation Process:**

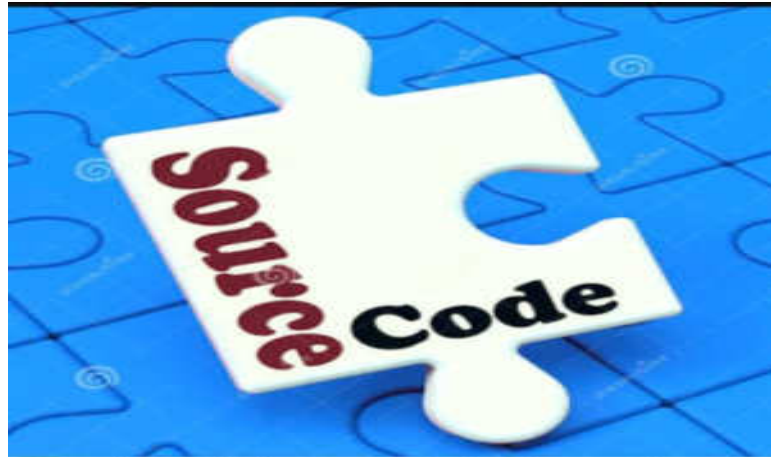
### **Deployment a windows Application:**

The deployment test clicks once applications need to perform the following steps:

- Right –click the Deployment Test Click Once project node in solution Explorer and select the Publish option from the context menu to Display the First Page of the Publish Wizard.
- Specify the location where you want to publish your Application. In our case, we are publishing the application to the Web page, therefore, we are specifying the <http://localhost/location>
- Click the Next button.
- Click the Next button the will the application be available offline page Appears.
- Click the next button. The Ready to Publish! Page Appears.
- Click the Finish button to close the Publish Wizard. The Browser containing the Application Appears.
- Click the Install button to install the Development Test Click Once Application When the Development Test Click Once Application is installed an executed, its Icon is displayed on the Start menu and entry is added to the ,Programs and Features option in the Control Panel. Now, you can run
- The Development Test Click Once Application from the Start menu. In addition, you can uninstall the application using the Control Panel.



# Chapter VI



## Source Code

### **Property information Master**

```
public void LoadRecord(System.Collections.Hashtable CurrentRow)
{
    TxtID.Text = (String)CurrentRow[0];
    CmbLocationId.SelectedValue = (String)CurrentRow[1];
}
```

```
cmbHolderId.SelectedValue = (String)CurrentRow[2];
cmbTypeId.SelectedValue = (String)CurrentRow[3];
TxtPropertyName.Text = (String)CurrentRow[4];
TxtDescription.Text = (String)CurrentRow[5];
TxtExpMoney.Text = (String)CurrentRow[7];
TxtStatus.Text = (String)CurrentRow[8];
String str = (String)CurrentRow[6];

if (str == "Rent")
{
    Rent.Checked = true;
}
else
{
    Sale.Checked = true;
}
}
public void FillLocation()
{
    SqlCommand cmd = new SqlCommand();
    DataTable dt = new DataTable();
    cmd.CommandText = ("Select* from TblLocationMaster");
    cmd.Connection = con;
    con.Open();
    dt.Load(cmd.ExecuteReader());
    con.Close();
    CmbLocationId.DataSource = dt;
    CmbLocationId.DisplayMember = "Name";
    CmbLocationId.ValueMember = "LocationID";
}
public void LoadFields()
{
```

```
DataTable dt = showdata("Select * from TbIPropertyInformationMst" + " Where 1 <>  
1 ");  
foreach (DataColumn dc in dt.Columns)  
    {  
    CMBfield.Items.Add(dc.ColumnName);  
    }  
}
```

## **Deal Details**

```
using System;  
using System.Collections.Generic;  
using System.ComponentModel;
```



```
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;
using System.Data.SqlClient;
using System.Collections;

namespace FindAPlaceManagementSystem
{
    public partial class DealDetails : Form
    {
        SqlConnection con = new SqlConnection();

        public DealDetails()
        {
            InitializeComponent();
            con.ConnectionString
=Properties.Settings.Default.FindAPlaceConnectionString;
        }
        private void DealDetails_Load(object sender, EventArgs e)
        {
            groupBox1.Enabled = false;
            BtnSave.Enabled = false;
            show();
            FillPropertyInfoID();
            FillBuyer();
            Fill();
            Clear();
            LoadFields();
        }

        private void lbIX_Click(object sender, EventArgs e)
```

```
{
    this.Close();
}

private void BtnAdd_Click(object sender, EventArgs e)
{
    groupBox1.Enabled = true;
    BtnAdd.Enabled = false;
    BtnDelete.Enabled = false;
    BtnSave.Enabled = true;
    BtnSave.Text = "SAVE";
    BtnExit.Text = " CANCEL ";
    Clear();
}

private void BtnDelete_Click(object sender, EventArgs e)
{
    groupBox1.Enabled = true;
    BtnAdd.Enabled = false;
    BtnDelete.Enabled = false;
    BtnSave.Enabled = true;
    BtnExit.Enabled = true;
    BtnSave.Text = "CONFIRM";
    BtnExit.Text = " CANCEL ";
    Clear();
}

private void BtnExit_Click(object sender, EventArgs e)
{
    if (BtnExit.Text == "EXIT")
    {
        this.Close();
    }
}
```

```
else
{
    groupBox1.Enabled = true;
    BtnAdd.Enabled = true;
    //BtnModify.Enabled = true;
    BtnDelete.Enabled = true;
    BtnSave.Enabled = false;
    BtnSave.Text = "SAVE";
    BtnExit.Text = "EXIT";
    Clear();
}
}

public DataTable showdata(string Query)
{
    SqlCommand cmd = new SqlCommand(Query, con);
    DataTable dt = new DataTable();
    con.Open();
    dt.Load(cmd.ExecuteReader());
    con.Close();
    return dt;
}

public void show()
{
    DgData.DataSource = showdata("select* from ViewDealDetailss");
}

private void BtnSave_Click(object sender, EventArgs e)
{
    for (int i = 0; i < 1; i++)
    {
        if (cmbBuyerName.Text == "" || TxtBudget.Text == "" || TxtDeal.Text == "
"|| TxtFinalDeal.Text == "" || cmbPropertyInfolD.Text == "" || dateTimePicker1.Text
== "")
```



```
{
    MessageBox.Show("Provide necessary Fields....", "Error",
    MessageBoxButtons.RetryCancel, MessageBoxIcon.Error);
    break;
}
if (BtnSave.Text == "SAVE")
{
    SqlCommand cmd = new SqlCommand();
    cmd.CommandText = ("Insert into TblDealDetails
    Values(@1,@2,@3,@4)");
    cmd.Connection = con;
    cmd.Parameters.AddWithValue("@1", cmbBuyerName.SelectedValue);
    cmd.Parameters.AddWithValue("@2",
    cmbPropertyInfoID.SelectedValue);
    cmd.Parameters.AddWithValue("@3", TxtFinalDeal.Text);
    cmd.Parameters.AddWithValue("@4", DateTime.Now.Date);
    con.Open();
    cmd.ExecuteNonQuery();
    con.Close();
    MessageBox.Show("Record save successfily...", "Save",
    MessageBoxButtons.OK, MessageBoxIcon.Information);
    update();
    FillBuyer();
    FillPropertyInfoID();
    Fill();
    Clear();
}

}
}

private void BtnOK_Click(object sender, EventArgs e)
{
    try
```

```
{
    Hashtable ht = new Hashtable();
    foreach (DataGridViewCell dgc in DgData.CurrentRow.Cells)
    {
        ht.Add(dgc.ColumnIndex, dgc.Value.ToString());
    }
    LoadRecord(ht);
}
catch (Exception)
{
    Clear();
}
}

public void LoadRecord(System.Collections.Hashtable CurrentRow)
{
    TxtDealID.Text = (String)CurrentRow[0];
    cmbBuyerName.Text = (String)CurrentRow[1];
    TxtBudget.Text = (String)CurrentRow[2];
    TxtDeal.Text = (String)CurrentRow[3];
    TxtFinalDeal.Text = (String)CurrentRow[4];
    cmbPropertyInfolD.Text = (String)CurrentRow[5];
    TxtHolderName.Text = (String)CurrentRow[6];
    TxtExpectedMoney.Text = (String)CurrentRow[7];
    TxtDealType.Text = (String)CurrentRow[8];
    dateTimePicker1.Text = (String)CurrentRow[9];
}

public void FillBuyer()
{
    SqlCommand cmd = new SqlCommand();
    DataTable dt = new DataTable();
    cmd.CommandText = ("Select * from TblBuyerMst");
    cmd.Connection = con;
    con.Open();
    dt.Load(cmd.ExecuteReader());
}
```

```
con.Close();
cmbBuyerName.DataSource = dt;
cmbBuyerName.DisplayMember = "Name";
cmbBuyerName.ValueMember = "BuyerID";
}
public void FillPropertyInfoID()
{
    SqlCommand cmd = new SqlCommand();
    cmd.CommandText = ("Select * From DealAvailable");
    cmd.Connection = con;
    DataTable dt = new DataTable();
    con.Open();
    dt.Load(cmd.ExecuteReader());
    con.Close();
    cmbPropertyInfoID.DataSource = dt;
    cmbPropertyInfoID.DisplayMember = "PropertyInformationID";
    cmbPropertyInfoID.ValueMember = "PropertyInformationID";
}
public void LoadFields()
{
    DataTable dt = showdata("Select * from ViewDealDetailss" + " Where 1 <> 1
");
    foreach (DataColumn dc in dt.Columns)
    {
        CMBfield.Items.Add(dc.ColumnName);
    }
}

private void BtnSearch_Click(object sender, EventArgs e)
{
    String Query;
    if ((CMBoperator.Text == "LIKE") || (CMBoperator.Text == "NOT LIKE"))
    {
```



```
        Query = String.Format("{0} Where {1} {2} '{3}%' ", "Select * From  
ViewDealDetailss", CMBfield.Text, CMBoperator.Text, txtSEARCH.Text);  
    }  
    else  
    {  
        Query = String.Format("{0} Where {1} {2} '{3}'", "Select * from  
ViewDealDetailss", CMBfield.Text, CMBoperator.Text, txtSEARCH.Text);  
    }  
    DgData.DataSource = showdata(Query);  
public void Fill()  
{  
    SqlCommand cmd = new SqlCommand();  
    DataTable dt = new DataTable();  
    cmd.CommandText = ("Select * from ViewDealDetailss");  
    cmd.Connection = con;  
    con.Open();  
    dt.Load(cmd.ExecuteReader());  
    DgData.DataSource = dt;  
    con.Close();  
}  
public void Clear(){  
    TxtDealID.Clear();  
    TxtFinalDeal.Clear();  
    TxtHolderName.Clear();  
    TxtExpectedMoney.Clear();  
    TxtBudget.Clear();  
    TxtDeal.Clear();  
    TxtDealType.Clear();  
}  
  
public void update()  
{  
    SqlCommand cmd = new SqlCommand();
```

```
        cmd.CommandText = ("Update TblPropertyInformationMst set Status=@p1
where PropertyInformationID=@p2 ");
        cmd.Connection = con;
        cmd.Parameters.AddWithValue("@p1", "Not Available");
        cmd.Parameters.AddWithValue("@p2", cmbPropertyInfoID.Text);
        con.Open();
        cmd.ExecuteNonQuery();
        con.Close();
    }
    private void cmbPropertyInfoID_SelectedIndexChanged(object sender,
EventArgs e)
    {
        try
        {
            SqlCommand cmd = new SqlCommand();
            cmd.CommandText = ("SELECT * FROM ViewDealProperty Where
PropertyInformationID=" + cmbPropertyInfoID.SelectedValue);
            cmd.Connection = con;
            con.Open();
            SqlDataReader dr = cmd.ExecuteReader();
            while (dr.Read())
            {
                TxtHolderName.Text = dr[2].ToString();

                TxtExpectedMoney.Text = dr[3].ToString();

                TxtDealType.Text = dr[4].ToString();
            }
        }
        catch (Exception)
        {
        }
        con.Close();
    }
}
```

```
private void cmbBuyerName_SelectedIndexChanged(object sender, EventArgs e)
{
    try
    {
        SqlCommand cmd = new SqlCommand();
        cmd.CommandText = ("SELECT * FROM VBuyer Where BuyerID=" +
cmbBuyerName.SelectedValue);
        cmd.Connection = con;
        con.Open();
        SqlDataReader dr = cmd.ExecuteReader();
        while (dr.Read())
        {
            TxtBudget.Text = dr[3].ToString();
            TxtDeal.Text = dr[4].ToString();
        }
    }
    catch (Exception){ }
    con.Close();
}

private void dateTimePicker1_ValueChanged(object sender, EventArgs e)
{
    if (dateTimePicker1.Value < DateTime.Today)
    {
        MessageBox.Show("Select Proper Date", "Date",
            MessageBoxButtons.RetryCancel, MessageBoxIcon.Error);
    }
}
}
```

### **Commission Details**

```
public void getinfo()
{
```



```
SqlCommand cmd = new SqlCommand();
cmd.CommandText = ("SELECT * FROM TblPropertyInformationMst
WHERE PropertyInformationID=" + pid);
cmd.Connection = con;
con.Open();
SqlDataReader dr = cmd.ExecuteReader();
while (dr.Read())
{
    dealingtype = dr[6].ToString();
}
con.Close();
if (dealingtype == "Rent")
{
    TxtBuyerCommission.Text = (Int32.Parse(TxtFinalDealingCost.Text) *
0.05).ToString();
    TxtHolderCommission.Text = (Int32.Parse(TxtFinalDealingCost.Text) *
0.05).ToString();
    TxtTotalCommission.Text = ((Int32.Parse(TxtFinalDealingCost.Text) *
0.05) + (Int32.Parse(TxtFinalDealingCost.Text) * 0.05)).ToString();
}
else if (dealingtype == "Sale")
{
    TxtBuyerCommission.Text = (Int32.Parse(TxtFinalDealingCost.Text) *
0.02).ToString();
    TxtHolderCommission.Text = (Int32.Parse(TxtFinalDealingCost.Text) *
0.02).ToString();
    TxtTotalCommission.Text = ((Int32.Parse(TxtFinalDealingCost.Text) *
0.02) + (Int32.Parse(TxtFinalDealingCost.Text) * 0.02)).ToString();
}
}
public void LoadFields()
{
    DataTable dt = showdata("Select * from ViewCommissionDetails" + " Where 1 <> 1
");
```

```
foreach (DataColumn dc in dt.Columns)
{
    CMBfield.Items.Add(dc.ColumnName);
}

private void BtnSearch_Click(object sender, EventArgs e)
{
    String Query;
    if ((CMBoperator.Text == "LIKE") || (CMBoperator.Text == "NOT LIKE"))
    {
        Query = String.Format("{0} Where {1} {2} '{3}%' ", "Select *
FromViewCommissionDetails", CMBfield.Text, CMBoperator.Text, txtSEARCH.Text);
    }
    else
    {
        Query = String.Format("{0} Where {1} {2} '{3}'", "Select * from
ViewCommissionDetails", CMBfield.Text, CMBoperator.Text, txtSEARCH.Text);
    }
    DgData.DataSource = showdata(Query);
}

public void fill()
{
    SqlCommand cmd = new SqlCommand();
    DataTable dt = new DataTable();
    cmd.CommandText = ("Select * from ViewCommissionDetails");
    cmd.Connection = con;
    con.Open();
    dt.Load(cmd.ExecuteReader());
    DgData.DataSource = dt;
    con.Close();
}

public void Clear()
{
    TxtCommissionID.Clear();
    TxtFinalDealingCost.Clear();
}
```

```
TxtBuyerCommission.Clear();
TxtHolderCommission.Clear();
TxtTotalCommission.Clear();
}
    try
    {
        SqlCommand cmd = new SqlCommand();
        cmd.CommandText = ("SELECT * FROM V Where DealID=" +
cmbDealID.SelectedValue);
        cmd.Connection = con;
        con.Open();
        SqlDataReader dr = cmd.ExecuteReader();
        while (dr.Read())
        {
            TxtDealType.Text = dr[1].ToString();
        }
    }
    catch (Exception)
    {
    }
    con.Close();
}
    }
}
```

## Chapter VII



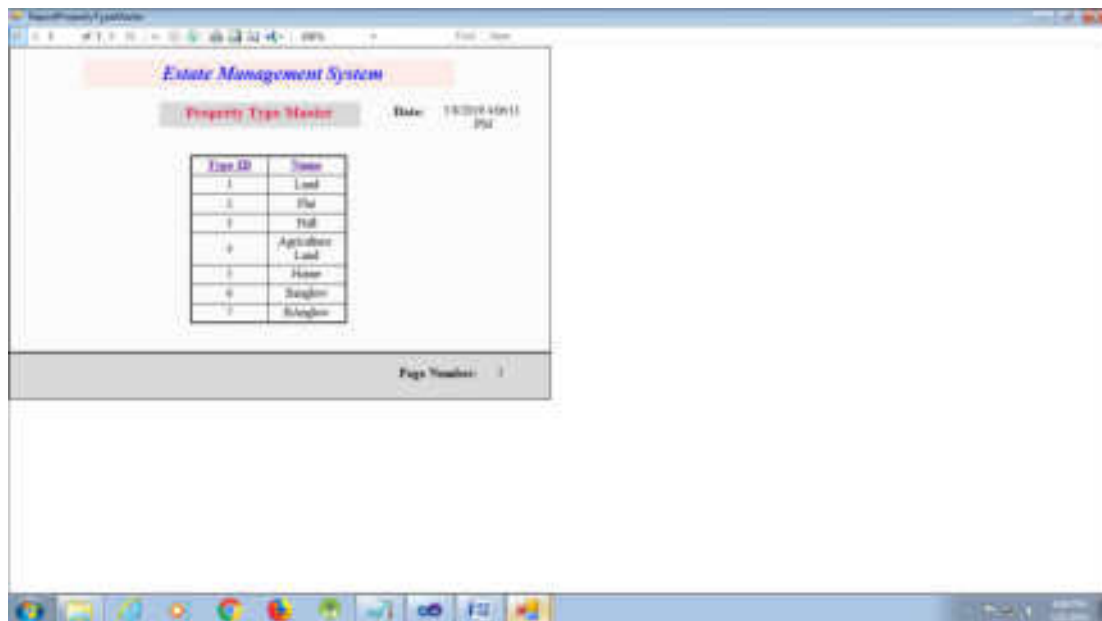


# Outputs

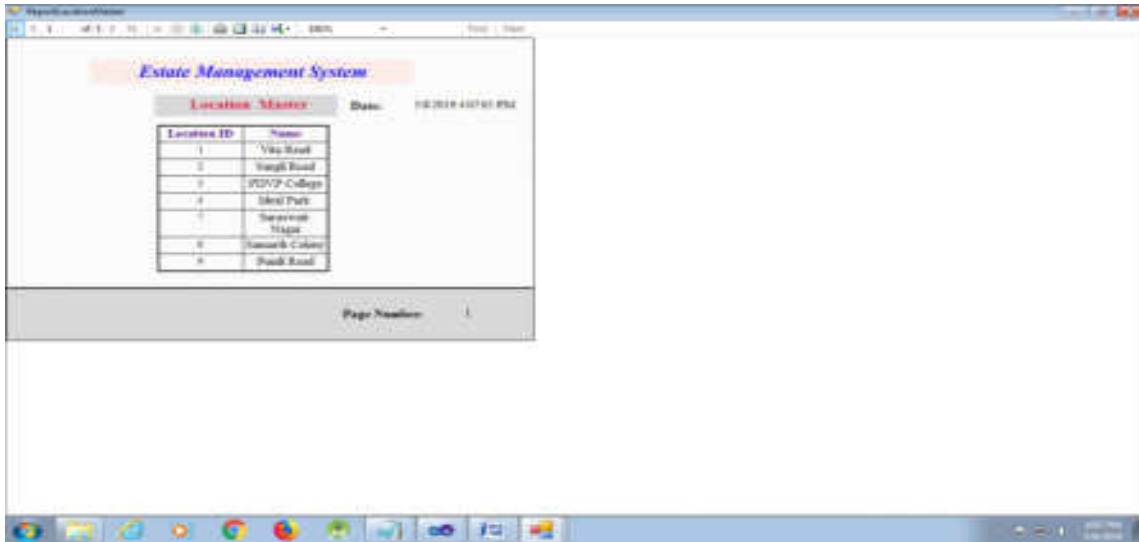
**MasterReports:**



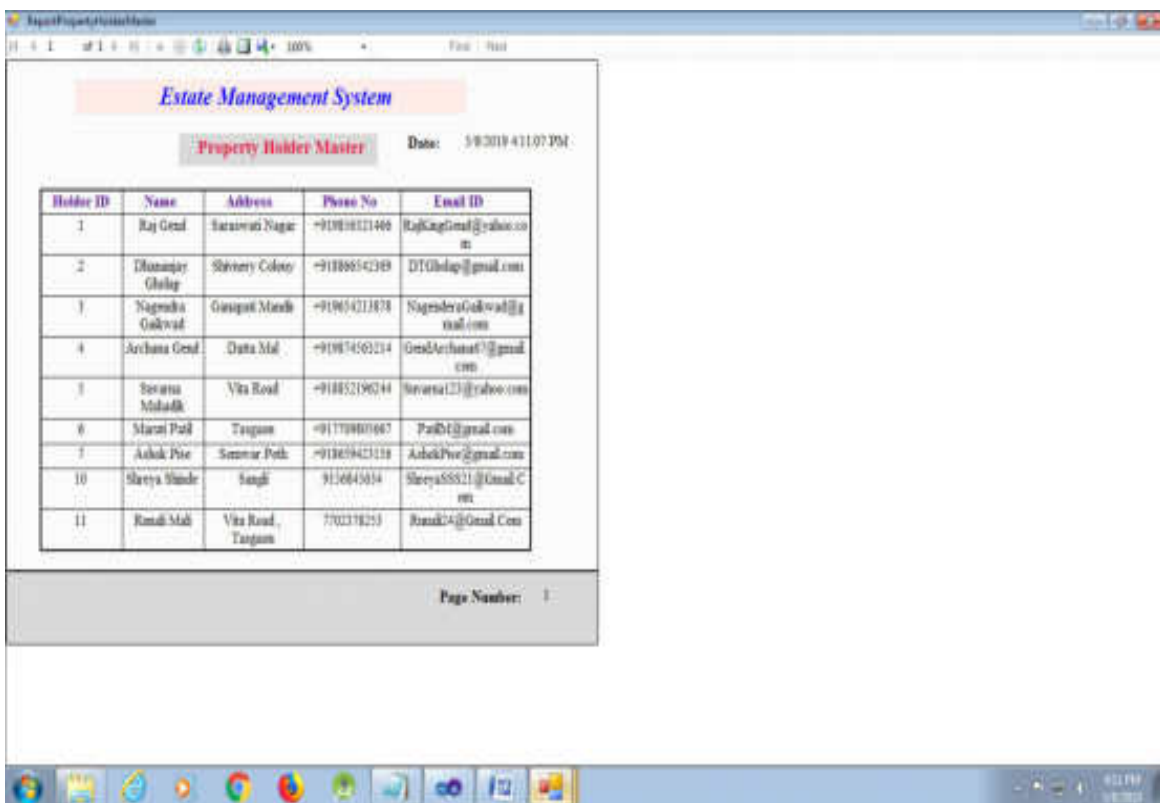
## 1. Property Type Master:



## 2. Location Master:



### 3. Property Holder Master:

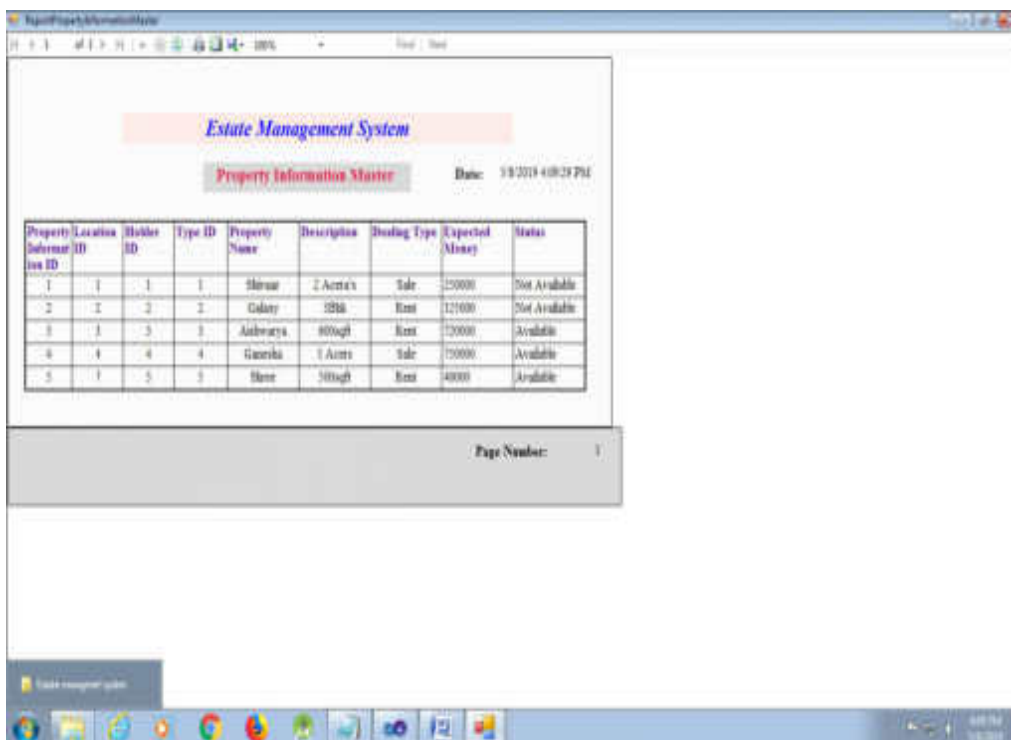


- Buyer Master:





• **Property Information Master:**



**Transaction Form Reports:**

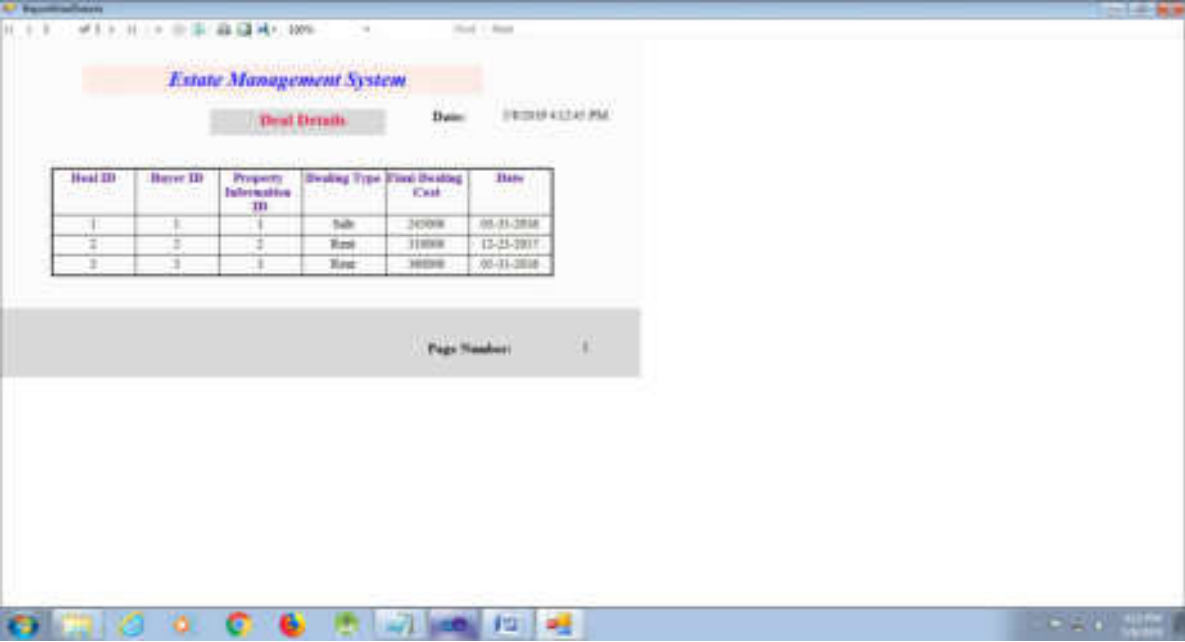


- Buyer Requirement Details:

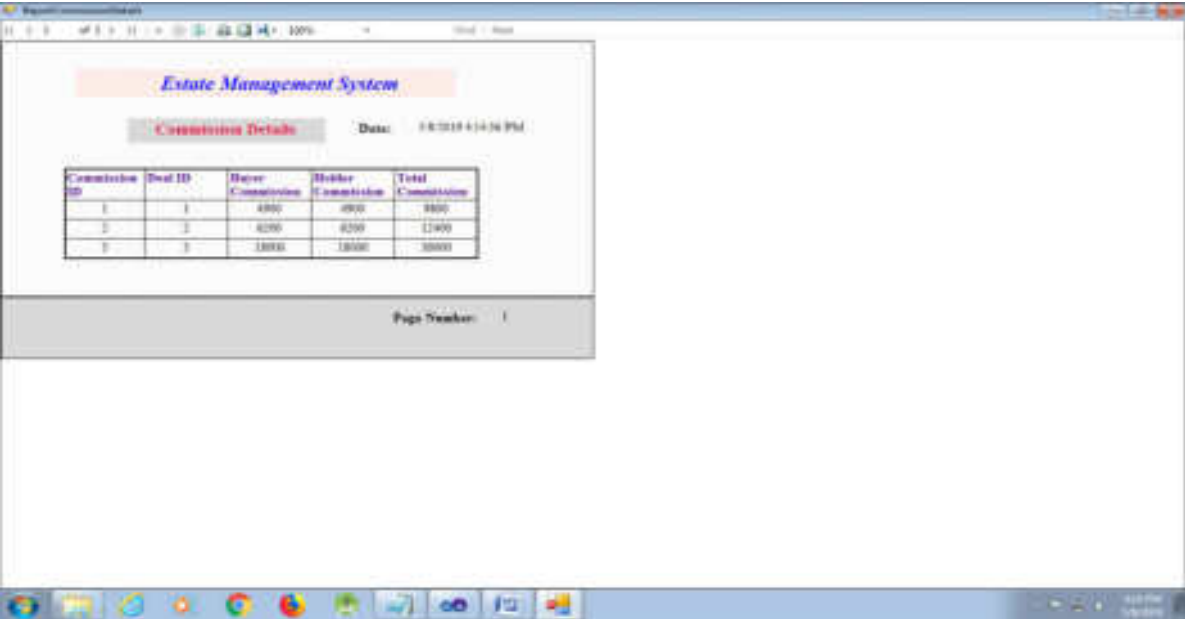
Buyer Requirement ID	Buyer Name	Location Name	Type Name	Budget	Dealing Type
1	Sharon Ghaly			20000	Sale
2	Sarah Paul			30000	Rent
3	Sarah Paul			30000	Rent
4	Ekhat Pua			30000	Sale
5	Manish Malikoti			40000	Rent

Page Number: 1

- Deal Details:



- **Commission Details:**







# Conclusion And Suggestion

## 7.1 Conclusion

The present “**Estate Management System**” is useful for broker office to keep the information of property holder, buyer and property information.

This system is developed as simple as possible to use. Being user friendly software the user does not find any difficulty in using it.

**Our application successfully gives the following functionalities**

- Keep property records.
- Keep buyer requirement, deal, and commission details.
- Keep property holder, buyer details.



# Future Enhancement



## **7.2 Future Enhancement**

Current developed system has limited scope compared to other software. But, as this system is developed to make it more useful to broker office so the operation in this system are comparatively less powerful. So we are decided to increase the number of option in this application, by adding new menus to each form and more than one way to make the same things.

### **Advantages**

This system is very useful for the broker to get records of the property information, deal and commission. Because in this we can store large amount data easily and search any record easily. There is no chances of lost any document. And this system is portable to carry anywhere in CD or in removable disk.

### **Limitation**

In this system many user cannot work together. As this is a windows based system we need to interact with the Administrator of the system each time.

### **This system can be enhanced in very attractive manner in future:**

We can implement this system as a client server application. By making client server application we can make that system useful for many user at a time. So that there will be no need to interact with the administrator each time. The system will manage all applications by its own.



# Bibliography

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.....Kogent Learning Solution Inc
- [www.Google.com](http://www.Google.com)



**Title of project**

**Production of Biodiesel from Cotton Seed Oil**  
**Using Natural Calcined Egg Shell Catalyst**

**VASANT AVISHKAR-2018**

**Presented by**

**Akshada Nikam**

**Shraddha Mokale**

**B. Sc. III**  
**Department of Chemistry**

**Padmabhushan Dr. Vasantodada Patil Mahavidyalaya, Tasgaon, Dist. Sangli**

**19<sup>st</sup> December 2018**

## Objective of present work

- \* Reduce pollution caused by exhaust emission of toxic gases from petrol and diesel.
- \* Minimise CO<sub>2</sub> level in atmosphere.
- \* Reduce formation of acid rain through emission of SO<sub>2</sub> and NO<sub>2</sub>.
- \* Synthesis of Biodiesel from natural catalyst.

## Abstract

Nowadays as we are seeing that consumption of fossil fuels is increasing day by day and these fossil fuels are present in limited quantity on earth's surface.

Biodiesel, the most promising alternative diesel fuel, has received considerable attention in recent years due to its following merits: biodegradable, renewable, non-toxic, less emission of gaseous and particulate pollutants

Calcium oxide catalysts were prepared from natural calcium sources such as Egg shell and the catalytic activities were evaluated in the transesterification of cotton seed oil.

## Introduction

Biodiesel is a biodegradable and non-toxic fuel produced from vegetable oil and animal fats which are renewable. The biodiesel combustion by products are better not only for inhabitants but also for earth's environment. The emissions of unburned hydrocarbons, carbon monoxide and particular matter of biodiesel combustion are much lesser

than conventional diesel fuel. Biodiesel is safer in handling and in storing as a fuel, because its flash point is more than petroleum based fuel. The cost of various feedstock of biodiesel is different as per availability and as per production technology. As the demand will increase the cost of biodiesel will also decrease. One of the major reasons to have favorable conditions to use biodiesel as alternative fuel is the cost of crude oil which is very high and varying on daily basis.

## Experimental Section

### **CATALYST PREPARATION**

#### Preparation of calcined Egg Shell Catalyst



This prepared Calcined Egg Shell was suspended in ammonia solution (5 wt. %), and 50 mL aqueous potassium hydroxide was added. The solution was heated at 80°C for 2 h. The precipitate was collected, washed and calcined at 400°C for 12h.



## **MATERIAL AND METHODS**

### **COLLECTION OF COTTON SEED OIL**



Cotton seeds

Cotton seed oil collected from household and used for preparation of Biodiesel.

## **RESULT AND DISCUSSION**

### **ACID ESTERIFICATION**

Oil is taken in around bottom flask and it is heated to 650C. Methanol and sulphuric acid are mixed separately and stirred. Then the mixture is added with the oil in the setup. Stirrer is switched on and the reaction takes place for 90 minutes. After 90 minutes, the product is removed and allowed to settle in a separating flask for 8 hours. The methyl ester is obtained at the lower portion and the top portion is to be removed. The determination of acid esterification. The acid value of the esters is determined.

## BASE TRANSESTERIFICATION

The transesterification process is catalysed by Calcined Egg Shell catalyst. It is the most active base catalysts since they give very high yields (>98%) in short reaction time (30 min) even if they are applied at low molar concentrations. Calcium oxide is the most widely used biodiesel catalyst with over 60% of industrial plants using this catalyst.



The methyl ester produced by acid esterification is transferred into a biodiesel reactor and then the catalyst/alcohol mixture is pumped into the oil. The final mixture is stirred vigorously for 45 minutes at 55°C in ambient pressure. A successful base esterification reaction produces two liquid phases ester and crude glycerol as shown in fig. The yield of biodiesel is determined.

## RECOVERY OF GLYSEROL

The entire mixture in the settling tank then settles and glycerol is left on the bottom and a methyl ester (biodiesel) is left on top. Phase separation is completed in 2 hours after stirring. Complete settling can take as long as 18 hours. After settling is complete, water is added at the rate of 5% by the volume of the oil then stirred for 5 minutes and the glycerol is allowed to settle again. After settling is complete the glycerol

is drained and the ester layer remains. The recovery of high-quality glycerol as a biodiesel by product is a primary action to be considered lowering the cost of biodiesel. By neutralizing the free fatty acids, removing the glycerol and creating an alcohol ester, transesterification occurs. This is accomplished by mixing methanol with sodium hydroxide to make sodium methoxide. This dangerous liquid is then mixed with vegetable oil.

Washing the methyl ester is a two step process that is carried out with extreme care. This procedure is continued until the methyl ester layer becomes clear. After settling, the aqueous solution is drained and water alone is added at 28% by volume of oil for the final washing. The resulting biodiesel fuel, when used directly in a diesel engine.

## CONCLUSION

- √ This study revealed that biodiesel could be produced successfully from the cottonseed oil by acid esterification and alkali-catalyzed transesterification.
- √ A low cost calcium oxide catalyst developed from mussel shells.
- √ The production of biodiesel from cotton seed oil offers a double-facet solution: economic, environmental.
- √ The viscosity of cotton seed oil reduces substantially after transesterification and is comparable to petro-diesel.
- √ Biodiesel produced from cotton seed oil possess a great potential for being source of alternate fuel.



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- [1] Ahn, E., Koncar, M., Mittelbach, M., Man, R. (2004) 'A low-waste process for the production of biodiesel', *Bio resource Technology* Vol.91, pp.289- 95.
- [2] Pedro, F., Joana, N.C.M., Idalina, R., Mendes, J., Rui, B., Moura, B. (2006) 'Production of biodiesel from waste frying oils', *Waste Management* Vol.26, pp.487-94.
- [3] Agarwal, A.K. (2007) 'Biofuels (Alcohols and Biodiesel) applications as fuels for internal combustion engines', *Progress in Energy and Combustion Science* Vol. 33, pp.233-71.
- [4] Alptekin, E., Canakci, M. (2008) 'Determination of the density and the viscosities of biodiesel diesel fuel blends', *Renewable Energy* Vol.33, pp.2623-30.
- [5] Basha, S.A., Gopal, K.R., Jebaraj, S. (2009) 'A review on biodiesel production, combustion, emissions and performance', *Renewable and Sustainable Energy Reviews* Vol.13, pp.1628-34.

**Thank You**

# **Production of Biodiesel from Cotton Seed Oil Using Natural Calcined Egg Shell Catalyst**

*A project submitted to*



**Shivaji University Kolhapur**

As partial fulfillment for the Degree of  
Bachelor of Science (B.Sc.)

**In the Subject**

**CHEMISTRY**

**Submitted by**

**Akshada Nikam  
Shraddha Mokale**

**UNDER THE GUIDANCE OF**

**Miss Megha U. Patil**

*M.Sc. NET-JRF(UGC), GATE*

**DEPARTMENT OF CHEMISTRY**

**PADMABHUSHAN DR. VASANTRAODADA PATIL**

**MAHAVIDYALAYA, TASGAON, DIST. SANGLI**

**2018-2019**

“Dissimination of Education for Knowledge, Science and Culture”  
-Shikshanmaharshi Dr. Bapuji Salunkhe

**Shri Swami Vivekanand Shikshan Sanstha, Kolhapur**



**PADMABHUSHAN DR.VASANTRAODADA PATIL**  
**MAHAVIDYALAYA, TASGAON, DIST. SANGLI, PIN : 416312**

## Certificate

This is to certify that the project report entitled “**Production of Biodiesel from Cotton Seed Oil Using Natural Calcined Egg Shell Catalyst**” submitted by **Miss Akshata Nikam and Miss Shradhha Mokale** in fulfilment of project work, prescribed by **Shivaji University, Kolhapur** for **B. Sc. III** course in **Chemistry** have been completed satisfactorily under my guidance during the academic year **2018-19**. The conclusions drawn are based on the experimental work carried by them.

To the best of my knowledge and belief, the matter presented here is original and has not been submitted earlier.

**Date:**

**Place: Tasgaon**

**Ms. Megha U. Patil**

(Project Guide)

**Examiner**

**Dr. V. D. Suryawanshi**

(Head of the Department)



# *Declaration*

We, hereby declare that work has been done by us and it has not previously formed the basis for the award of any degree or diploma. We, the students of Department of Chemistry, P. D. V. P. Mahavidyalaya, Tasgaon hereby declare that the project entitled **“Production of Biodiesel from Cotton Seed Oil Using Natural Calcined Egg Shell Catalyst”** written and submitted by us under the guidance of *Ms. Megha U. Patil* is our original work. The empirical findings presented in this report are based on the experimental work carried by us during the course of the project work.

**Date:**

**Place: Tasgaon**

**Miss Akshata Nikam**

**Miss Shradhha Mokale**

## *Acknowledgement*

We would like to express our sincere thanks to our principal, Dr. R. R. Kumbhar, Padmabhushan Dr. Vasantrodada Patil Mahavidyalaya, Tasgaon for giving us a golden opportunity to do our project and providing facilities required during this project.

We are very much thankful to Dr. V. D. Suryawanshi Head, Department of Chemistry for giving us a golden opportunity to do our project and giving facilities required during this project. Without whose help we may not be able to complete this project work properly.

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My special thanks to Mr. Sawant and Mr. Pawar whose association helped us make this project truly memorable experience.

Words are inadequate for the love and care of our parents. Finally, we owe our head in front of GOD for providing me such a great opportunity.

**Miss Akshata Nikam**

**Miss Shradhha Mokale**

**Objective of present work**

- \* Reduce pollution caused by exhaust emission of toxic gases from petrol and diesel.
- \* Minimise CO<sub>2</sub> level in atmosphere.
- \* Reduce formation of acid rain through emission of SO<sub>2</sub> and NO<sub>2</sub>.
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**Introduction**

Biodiesel is a biodegradable and non-toxic fuel produced from vegetable oil and animal fats which are renewable. The biodiesel combustion by products are better not only for inhabitants but also for earth's environment. The emissions of unburned hydrocarbons, carbon monoxide and particular matter of biodiesel combustion are much lesser than conventional diesel fuel. Biodiesel is safer in handling and in



storing as a fuel, because its flash point is more than petroleum based fuel. The cost of various feedstock of biodiesel is different as per availability and as per production technology. As the demand will increase the cost of biodiesel will also decrease. One of the major reasons to have favorable conditions to use biodiesel as alternative fuel is the cost of crude oil which is very high and varying on daily basis. Blends of biodiesel and conventional hydrocarbon-based diesel are products most commonly distributed for use in the retail diesel fuel marketplace. Much of the world uses a system known as the "B" factor to state the amount of biodiesel in any fuel mix.

- 100% biodiesel is referred to as B100
- 20% biodiesel, 80% petrodiesel is labeled B20
- 5% biodiesel, 95% petrodiesel is labeled B5
- 2% biodiesel, 98% petrodiesel is labeled B2

Blends of 20% biodiesel and lower can be used in diesel equipment with no, or only minor modifications, although certain manufacturers do not extend warranty coverage if equipment is damaged by these blends. The B6 to B20 blends are covered by the ASTM D7467 specification. Biodiesel can also be used in its pure form (B100), but may require certain engine modifications to avoid maintenance and performance problems. Blending B100 with petroleum diesel may be accomplished by:

- Mixing in tanks at manufacturing point prior to delivery to tanker truck
- Splash mixing in the tanker truck (adding specific percentages of biodiesel and petroleum diesel)
- In-line mixing, two components arrive at tanker truck simultaneously.
- Metered pump mixing, petroleum diesel and biodiesel meters are set to X total volume, transfer pump pulls from two points and mix is complete on leaving pump.

Biodiesel can be used in pure form (B100) or may be blended with petroleum diesel at any concentration in most injection pump diesel engines. New extreme high-pressure (29,000 psi) common rail engines have strict factory limits of B5 or B20, depending on manufacturer. Biodiesel has different solvent properties from petrodiesel, and will degrade natural rubber gaskets and hoses in vehicles (mostly vehicles manufactured before 1992), although these tend to wear out naturally and most likely will have already been replaced with FKM, which is nonreactive to biodiesel. Biodiesel has been known to break down deposits of residue in the fuel lines where petrodiesel has been used. As a result, fuel filters may become clogged with particulates if a quick transition to pure biodiesel is made. Therefore, it is recommended to change the fuel filters on engines and heaters shortly after first switching to a biodiesel blend.

In 2005, Chrysler (then part of DaimlerChrysler) released the Jeep Liberty CRD diesels from the factory into the European market with 5% biodiesel blends, indicating at least partial acceptance of biodiesel as an acceptable diesel fuel additive. In 2007, DaimlerChrysler indicated its intention to increase warranty coverage to 20% biodiesel blends if biofuel quality in the United States can be standardized.

The Volkswagen Group has released a statement indicating that several of its vehicles are compatible with B5 and B100 made from rape seed oil and compatible with the EN 14214 standard. The use of the specified biodiesel type in its cars will not void any warranty.

Mercedes Benz does not allow diesel fuels containing greater than 5% biodiesel (B5) due to concerns about "production shortcomings".<sup>[16]</sup> Any damages caused by the use of such non-approved fuels will not be covered by the Mercedes-Benz Limited Warranty.

Starting in 2004, the city of Halifax, Nova Scotia decided to update its bus system to allow the fleet of city buses to run entirely on a fish-oil based biodiesel. This caused the city some initial mechanical issues, but after several years of refining, the entire fleet had successfully been converted.



In 2007, McDonald's of UK announced it would start producing biodiesel from the waste oil byproduct of its restaurants. This fuel would be used to run its fleet.

The 2014 Chevy Cruze Clean Turbo Diesel, direct from the factory, will be rated for up to B20 (blend of 20% biodiesel / 80% regular diesel) biodiesel compatibility

British train operating company Virgin Trains claimed to have run the UK's first "biodiesel train", which was converted to run on 80% petrodiesel and 20% biodiesel.

The British Royal Train on 15 September 2007 completed its first ever journey run on 100% biodiesel fuel supplied by Green Fuels Ltd. Prince Charles and Green Fuels managing director James Hygate were the first passengers on a train fueled entirely by biodiesel fuel. Since 2007, the Royal Train has operated successfully on B100 (100% biodiesel).

Biodiesel can also be used as a heating fuel in domestic and commercial boilers, a mix of heating oil and biofuel which is standardized and taxed slightly differently from diesel fuel used for transportation. Bioheat fuel is a proprietary blend of biodiesel and traditional heating oil. Bioheat is a registered trademark of the National Biodiesel Board [NBB] and the National Oilheat Research Alliance [NORA] in the U.S., and Columbia Fuels in Canada. Heating biodiesel is available in various blends. ASTM 396 recognizes blends of up to 5 percent biodiesel as equivalent to pure petroleum heating oil. Blends of higher levels of up

to 20% biofuel are used by many consumers. Research is underway to determine whether such blends affect performance. Older furnaces may contain rubber parts that would be affected by biodiesel's solvent properties, but can otherwise burn biodiesel without any conversion required. Care must be taken, however, given that varnishes left behind by petrodiesel will be released and can clog pipes- fuel filtering and prompt filter replacement is required. Another approach is to start using biodiesel as a blend, and decreasing the petroleum proportion over time can allow the varnishes to come off more gradually and be less likely to clog. Thanks to its strong solvent properties, however, the furnace is cleaned out and generally becomes more efficient.<sup>[33]</sup> A technical research paper describes laboratory research and field trials project using pure biodiesel and biodiesel blends as a heating fuel in oil-fired boilers. During the Biodiesel Expo 2006 in the UK, Andrew J. Robertson presented his biodiesel heating oil research from his technical paper and suggested B20 biodiesel could reduce UK household CO<sub>2</sub> emissions by 1.5 million tons per year.

A law passed under Massachusetts Governor Deval Patrick requires all home heating diesel in that state to be 2% biofuel by July 1, 2010, and 5% biofuel by 2013.<sup>[35]</sup> New York City has passed a similar law.

### **Cleaning oil spills**

With 80–90% of oil spill costs invested in shoreline cleanup, there is a search for more efficient and cost-effective methods to extract oil spills from the

shorelines. Biodiesel has displayed its capacity to significantly dissolve crude oil, depending on the source of the fatty acids. In a laboratory setting, oiled sediments that simulated polluted shorelines were sprayed with a single coat of biodiesel and exposed to simulated tides. Biodiesel is an effective solvent to oil due to its methyl ester component, which considerably lowers the viscosity of the crude oil. Additionally, it has a higher buoyancy than crude oil, which later aids in its removal. As a result, 80% of oil was removed from cobble and fine sand, 50% in coarse sand, and 30% in gravel. Once the oil is liberated from the shoreline, the oil-biodiesel mixture is manually removed from the water surface with skimmers. Any remaining mixture is easily broken down due to the high biodegradability of biodiesel, and the increased surface area exposure of the mixture.

### **Biodiesel in generators**



Biodiesel is also used in rental generators



In 2001, UC Riverside installed a 6-megawatt backup power system that is entirely fueled by biodiesel. Backup diesel-fueled generators allow companies to avoid damaging blackouts of critical operations at the expense of high pollution and emission rates. By using B100, these generators were able to essentially eliminate the byproducts that result in smog, ozone, and sulfur emissions. The use of these generators in residential areas around schools, hospitals, and the general public result in substantial reductions in poisonous carbon monoxide and particulate matter.

### Historical background



Rudolf Diesel

Transesterification of a vegetable oil was conducted as early as 1853 by Patrick Duffy, four decades before the first diesel engine became functional. Rudolf Diesel's prime model, a single 10 ft (3.05 m) iron cylinder with a flywheel at its base, ran on its own power for the first time in Augsburg, Germany, on 10 August 1893 running on nothing but peanut oil. In remembrance of this event, 10 August has been

declared "International Biodiesel Day". It is often reported that Diesel designed his engine to run on peanut oil, but this is not the case. Diesel stated in his published papers, "at the Paris Exhibition in 1900 (*Exposition Universelle*) there was shown by the Otto Company a small Diesel engine, which, at the request of the French government ran on arachide (earth-nut or pea-nut) oil (see biodiesel), and worked so smoothly that only a few people were aware of it. The engine was constructed for using mineral oil, and was then worked on vegetable oil without any alterations being made. The French Government at the time thought of testing the applicability to power production of the Arachide, or earth-nut, which grows in considerable quantities in their African colonies, and can easily be cultivated there." Diesel himself later conducted related tests and appeared supportive of the idea. In a 1912 speech Diesel said, "the use of vegetable oils for engine fuels may seem insignificant today but such oils may become, in the course of time, as important as petroleum and the coal-tar products of the present time."

On 31 August 1937, G. Chavanne of the University of Brussels (Belgium) was granted a patent for a "Procedure for the transformation of vegetable oils for their uses as fuels" (fr. "*Procédé de Transformation d'Huiles Végétales en Vue de Leur Utilisation comme Carburants*") Belgian Patent 422,877. This patent described the alcoholysis (often referred to as transesterification) of vegetable oils using ethanol (and mentions methanol) in order to separate the fatty acids from the glycerol by

replacing the glycerol with short linear alcohols. This appears to be the first account of the production of what is known as "biodiesel" today.<sup>[44]</sup> This is similar (copy) to the patented methods used in the 18th century to make lamp-oil, and may be inspired by some old historical oil lamps, in some places.

Research into the use of transesterified sunflower oil, and refining it to diesel fuel standards, was initiated in South Africa in 1979. By 1983, the process for producing fuel-quality, engine-tested biodiesel was completed and published internationally. An Austrian company, Gaskoks, obtained the technology from the South African Agricultural Engineers; the company erected the first biodiesel pilot plant in November 1987, and the first industrial-scale plant in April 1989 (with a capacity of 30,000 tons of rapeseed per annum).

Throughout the 1990s, plants were opened in many European countries, including the Czech Republic, Germany and Sweden. France launched local production of biodiesel fuel (referred to as *diester*) from rapeseed oil, which is mixed into regular diesel fuel at a level of 5%, and into the diesel fuel used by some captive fleets (e.g. public transportation) at a level of 30%. Renault, Peugeot and other manufacturers have certified truck engines for use with up to that level of partial biodiesel; experiments with 50% biodiesel are underway. During the same period, nations in other parts of the world also saw local production of biodiesel starting up: by 1998, the Austrian Biofuels Institute had identified 21 countries with commercial



biodiesel projects. 100% biodiesel is now available at many normal service stations across Europe.

## Properties

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Biodiesel has promising lubricating properties and cetane ratings compared to low sulfur diesel fuels.<sup>[49]</sup> Fuels with higher lubricity may increase the usable life of high-pressure fuel injection equipment that relies on the fuel for its lubrication. Depending on the engine, this might include high pressure injection pumps, pump injectors (also called *unit injectors*) and fuel injectors.



Older diesel Mercedes are popular for running on biodiesel.

The calorific value of biodiesel is about 37.27 MJ/kg. This is 9% lower than regular Number 2 petrodiesel. Variations in biodiesel energy density is more dependent on the feedstock used than the production process. Still, these variations are less than for petrodiesel. It has been claimed biodiesel gives better lubricity and more complete combustion thus increasing the engine energy output and partially compensating for the higher energy density of petrodiesel.

The color of biodiesel ranges from golden to dark brown, depending on the production method. It is slightly miscible with water, has a high boiling point and low vapor pressure. The flash point of biodiesel exceeds 130 °C (266 °F), significantly higher than that of petroleum diesel which may be as low as 52 °C (126 °F). Biodiesel has a density of ~0.88 g/cm<sup>3</sup>, higher than petrodiesel (~0.85 g/cm<sup>3</sup>). Biodiesel contains virtually no sulfur, and it is often used as an additive to Ultra-Low Sulfur Diesel (ULSD) fuel to aid with lubrication, as the sulfur compounds in petrodiesel provide much of the lubricity.

### **Fuel efficiency**

The power output of biodiesel depends on its blend, quality, and load conditions under which the fuel is burnt. The thermal efficiency for example of B100 as compared to B20 will vary due to the differing energy content of the various blends. Thermal efficiency of a fuel is based in part on fuel characteristics such as: viscosity, specific density, and flash point; these characteristics will change as the blends as well as the quality of biodiesel varies. The American Society for Testing and Materials has set standards in order to judge the quality of a given fuel sample. One study found that the brake thermal efficiency of B40 was superior to traditional petroleum counterpart at higher compression ratios (this higher brake thermal efficiency was recorded at compression ratios of 21:1). It was noted that, as the compression ratios increased, the efficiency of all fuel types – as well as blends

being tested – increased; though it was found that a blend of B40 was the most economical at a compression ratio of 21:1 over all other blends. The study implied that this increase in efficiency was due to fuel density, viscosity, and heating values of the fuels.

### **Combustion**

Fuel systems on some modern diesel engines were not designed to accommodate biodiesel, while many heavy duty engines are able to run with biodiesel blends up to B20. Traditional direct injection fuel systems operate at roughly 3,000 psi at the injector tip while the modern common rail fuel system operates upwards of 30,000 PSI at the injector tip. Components are designed to operate at a great temperature range, from below freezing to over 1,000 °F (560 °C). Diesel fuel is expected to burn efficiently and produce as few emissions as possible. As emission standards are being introduced to diesel engines the need to control harmful emissions is being designed into the parameters of diesel engine fuel systems. The traditional inline injection system is more forgiving to poorer quality fuels as opposed to the common rail fuel system. The higher pressures and tighter tolerances of the common rail system allows for greater control over atomization and injection timing. This control of atomization as well as combustion allows for greater efficiency of modern diesel engines as well as greater control over emissions. Components within a diesel fuel system interact with the fuel in a way to ensure efficient operation of the fuel system



and so the engine. If an out-of-specification fuel is introduced to a system that has specific parameters of operation, then the integrity of the overall fuel system may be compromised. Some of these parameters such as spray pattern and atomization are directly related to injection timing.

One study found that during atomization, biodiesel and its blends produced droplets were greater in diameter than the droplets produced by traditional petrodiesel. The smaller droplets were attributed to the lower viscosity and surface tension of traditional diesel fuel. It was found that droplets at the periphery of the spray pattern were larger in diameter than the droplets at the center. This was attributed to the faster pressure drop at the edge of the spray pattern; there was a proportional relationship between the droplet size and the distance from the injector tip. It was found that B100 had the greatest spray penetration, this was attributed to the greater density of B100. Having a greater droplet size can lead to inefficiencies in the combustion, increased emissions, and decreased horse power. In another study it was found that there is a short injection delay when injecting biodiesel. This injection delay was attributed to the greater viscosity of Biodiesel. It was noted that the higher viscosity and the greater cetane rating of biodiesel over traditional petrodiesel lead to poor atomization, as well as mixture penetration with air during the ignition delay period. Another study noted that this ignition delay may aid in a decrease of NO<sub>x</sub> emission.

## **Emissions**

Emissions are inherent to the combustion of diesel fuels that are regulated by the U.S. Environmental Protection Agency (E.P.A.). As these emissions are a byproduct of the combustion process, in order to ensure E.P.A. compliance a fuel system must be capable of controlling the combustion of fuels as well as the mitigation of emissions. There are a number of new technologies being phased in to control the production of diesel emissions. The exhaust gas recirculationsystem, E.G.R., and the diesel particulate filter, D.P.F., are both designed to mitigate the production of harmful emissions.

A study performed by the Chonbuk National University concluded that a B30 biodiesel blend reduced carbon monoxide emissions by approximately 83% and particulate matter emissions by roughly 33%. NO<sub>x</sub> emissions, however, were found to increase without the application of an E.G.R. system. The study also concluded that, with E.G.R, a B20 biodiesel blend considerably reduced the emissions of the engine. Additionally, analysis by the California Air Resources Board found that biodiesel had the lowest carbon emissions of the fuels tested, those being ultra-low-sulfur diesel, gasoline, corn-based ethanol, compressed natural gas, and five types of biodiesel from varying feedstocks. Their conclusions also showed great variance in carbon emissions of biodiesel based on the feedstock used.

Of soy, tallow, canola, corn, and used cooking oil, soy showed the highest carbon emissions, while used cooking oil produced the lowest.

While studying the effect of biodiesel on diesel particulate filters, it was found that though the presence of sodium and potassium carbonates aided in the catalytic conversion of ash, as the diesel particulates are catalyzed, they may congregate inside the D.P.F. and so interfere with the clearances of the filter. This may cause the filter to clog and interfere with the regeneration process.<sup>[66]</sup> In a study on the impact of E.G.R. rates with blends of jathropa biodiesel it was shown that there was a decrease in fuel efficiency and torque output due to the use of biodiesel on a diesel engine designed with an E.G.R. system. It was found that CO and CO<sub>2</sub> emissions increased with an increase in exhaust gas recirculation but NO<sub>x</sub> levels decreased. The opacity level of the jathropa blends was in an acceptable range, where traditional diesel was out of acceptable standards. It was shown that a decrease in No<sub>x</sub> emissions could be obtained with an E.G.R. system. This study showed an advantage over traditional diesel within a certain operating range of the E.G.R. system.

A variety of oils can be used to produce biodiesel. These include:

- Virgin oil feedstock – rapeseed and soybean oils are most commonly used, soybean oil accounting for about half of U.S. production. It also can be obtained from Pongamia, field pennycress and jatropha and other crops such



as mustard, jojoba, flax, sunflower, palm oil, coconut and hemp (see list of vegetable oils for biofuel for more information);

- Waste vegetable oil (WVO);
- Animal fats including tallow, lard, yellow grease, chicken fat, and the by-products of the production of Omega-3 fatty acids from fish oil.
- Algae, which can be grown using waste materials such as sewage and without displacing land currently used for food production.
- Oil from halophytes such as *Salicornia bigelovii*, which can be grown using saltwater in coastal areas where conventional crops cannot be grown, with yields equal to the yields of soybeans and other oilseeds grown using freshwater irrigation
- Sewage Sludge – The sewage-to-biofuel field is attracting interest from major companies like Waste Management and startups like InfoSpi, which are betting that renewable sewage biodiesel can become competitive with petroleum diesel on price.

## **Experimental Section**

### **CATALYST PREPARATION**

#### **Preparation of calcined Egg Shell Catalyst**

This prepared Calcined Egg Shell was suspended in ammonia solution (5 wt. %), and 50 mL aqueous potassium hydroxide was added. The solution

was heated at 80°C for 2 h. The precipitate was collected, washed and calcined at 400°C for 12h.



## COLLECTION OF COTTON SEED OIL

Cotton seed oil collected from household and used for preparation of Biodiesel.



## ACID ESTERIFICATION

Oil is taken in around bottom flask and it is heated to 650C. Methanol and sulphuric acid are mixed separately and stirred. Then the mixture is added with the oil in the setup. Stirrer is switched on and the reaction takes place for 90 minutes. After 90 minutes, the product is removed and allowed to settle in a separating flask for 8 hours. The methyl ester is obtained at the lower portion and the top portion is to be removed. The determination of acid esterification. The acid value of the esters is determined.

### **BASE TRANSESTERIFICATION**

The transesterification process is catalysed by Calcined Egg Shell catalyst. It is the most active base catalysts since they give very high yields (>98%) in short reaction time (30 min) even if they are applied at low molar concentrations. Calcium oxide is the most widely used biodiesel catalyst with over 60% of industrial plants using this catalyst. The methyl ester produced by acid esterification is transferred into a biodiesel reactor and then the catalyst/alcohol mixture is pumped into the oil. The final mixture is stirred vigorously for 45 minutes at 550C in ambient pressure. A successful base esterification reaction produces two liquid phases ester and crude glycerol as shown in fig. The yield of biodiesel is determined.





### **RECOVERY OF GLYSEROL**

The entire mixture in the settling tank then settles and glycerol is left on the bottom and a methyl ester (biodiesel) is left on top. Phase separation is completed in 2 hours after stirring. Complete settling can take as long as 18 hours. After settling is complete, water is added at the rate of 5% by the volume of the oil then stirred for 5 minutes and the glycerol is allowed to settle again. After settling is complete the glycerol is drained and the ester layer remains. The recovery of high-quality glycerol as a biodiesel by product is a primary action to be considers lowering the cost of biodiesel. By neutralizing the free fatty acids, removing the glycerol and creating an

alcohol ester, transesterification occurs. This is accomplished by mixing methanol with sodium hydroxide to make sodium methoxide. This dangerous liquid is then mixed with vegetable oil. Washing the methyl ester is a two step process that is carried out with extreme care. This procedure is continued until the methyl ester layer becomes clear. After settling, the aqueous solution is drained and water alone is added at 28% by volume of oil for the final washing. The resulting biodiesel fuel, when used directly in a diesel engine.

### **Conclusion:**

This study revealed that biodiesel could be produced successfully from cottonseed oil by acid esterification and alkali catalyzed transesterification.

Low cost calcium oxide obtained from egg shell.

This is environmental and ecofriendly approach.

It is great alternative source for fuel.

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# आविष्कार संशोधन स्पर्धा उत्साहात

तासगाव, ता. २५ :

शिक्षणमूर्ती डॉ. बापुजी साठुंखे जन्महालब्दी वर्षीचे औचित्य साधून शिवाजी विद्यापीठ कोल्हापूर अंतर्गत नित्यसंस्मरण आविष्कार संशोधन स्पर्धा पंचपूरण डॉ. वसंतराजराव पाटील महाविद्यालयात पार पडल्या. स्पर्धेचे उद्घाटन शिवाजी विद्यापीठाचे विज्ञान व संशोधन विभागाचे अधिष्ठाता डॉ. डॉ. पी. एस. पाटील यांच्या हस्ते व प्राचार्य डॉ. अर. अर. कुंभार यांच्या अध्यक्षतेखाली झाले.

या स्पर्धेत निकाल खालीलप्रमाणे विभाग एक (मानवविद्या, ललित कला, शिक्षणशास्त्र व भाषा) प्रथम कु. पूजा पाटील ए.सी.एस. कॉलेज रामानंदनगर, तृतीय कु. पूजा मुन्योक के.बी.पी. कॉलेज इस्लामपूर, तृतीय कु. अनुराधा चौधुरे कन्या महाविद्यालय मिरज, विभाग दुसरा



तासगाव : आविष्कार संशोधन स्पर्धेच्या बक्षीस वितरणप्रसंगी डॉ. ए. एस. गुरुव व मान्यवर.

(वाणिज्य व्यवसाय व कायदा) प्रथम ज्युमंक कुमारी नेहा कुंभार बळवंत कॉलेज विटा, द्वितीय उमेश मोहिते ए.सी.एस. कॉलेज कासेगाव, तृतीय सिपळली पवन आर. आय. टी. कॉलेज इस्लामपूर, विभाग तिसरा (विज्ञान) प्रथम कौस्तुभ वाडकर पारंगराज कदम कॉलेज सांगली, द्वितीय रेणू शेजाळे आर. आय. टी. इस्लामपूर, तृतीय शौरभ जोशी व

अशिया बागवान यांना विभागून देण्यात आला. विभाग चार (कृषी व प्राणिसासन) प्रथम सोहेल मुलांनी ए.सी.एस. पलूस, द्वितीय कु. ज्योती पागडे, पी. डी. व्ही. पी. कॉलेज तासगाव, तृतीय कु. माधुरी पाटील मिरज कॉलेज मिरज, विभाग पाच (अभियांत्रिकी आणि संशोधन) प्रथम कु. प्रज्ञा भागत बळवंत कॉलेज विटा, रमेश हजाराचिण्टे के. बी. पी. कॉलेज

इस्लामपूर, तृतीय कु. अक्षरा विक्रम पी. डी. व्ही. पी. कॉलेज तासगाव, विभाग सहा (औषधनिर्माण) प्रथम कु. नीलम घाने ए.सी.एस. कॉलेज पलूस, द्वितीय ऋतुजा साठुंखे ए.सी.एस. कॉलेज रामानंदनगर, तृतीय माधुरी सान्हाण बळवंत कॉलेज विटा, या स्पर्धेचे बक्षीस वितरण प्रा. डॉ. ए. एस. गुरुव प्राचार्य डॉ. आर. अर. कुंभार यांच्या हस्ते संपन्न झाले. पांडुरंगी डॉ. व्ही. वाघ. पवार, प्रा. के. एस. पाटील महाविद्यालयातील प्राध्यापक, विल्लुवातील विविध महाविद्यालयांतून आलेले स्पर्धक, मार्गदर्शक व परीक्षक उपस्थित होते. या कार्यक्रमाचे प्राम्ताधिक डॉ. अका अंधोरे यांनी केले, तर आचार प्रा. डॉ. एस. ए. खाडे यांनी केले. कार्यक्रमाचे सूत्रसंचालन प्रा. आण्णासाहेब बाहल व डॉ. तातोबा बटामे यांनी केले.

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Tasgaon, Dist. Sangli**

**DEPARTMENT OF CHEMISTRY**

**‘Best from Waste’**

Presented by

**Miss. Shinde Madhuri Anandrao**

**Miss. Shinde Mayawati Sambhaji**

**B.Sc. III (CHEMISTRY)**

**2016-17**



# **INTRODUCTION**

## **General Concept:-**

Vinegar is an acidic liquid obtained by oxidation of ethanol, which is obtained by fermentation of fermentable materials. Thus this process yield key ingredient acetic acid (i.e. Ethanoic acid) through formation of ethanol.

The term “Vinegar” derived from the old French word Vinegar meaning is “Sour Wine”. It is also known as “Acidity regulator”.

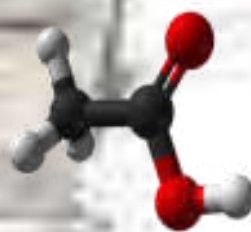
Vinegar contains 8-10% acetic acid.

## **Vinegar (Acetic Acid)**

**Molecular Formula:-**  $C_2H_4O_2$

**Structural Formula:-**  $CH_3COOH$

**3- Dimensional Structure:-**



## **General Information about ethyl alcohol**

Ethyl alcohol is one of the extremely important compound by virtue of its economically useful properties as solvents and for the synthesis of number of other chemicals. Ethyl alcohol is also known as “alcohol” and it is used as a beverage since ancient times. Alcohol is used for medicinal pharmaceutical, flavoring & beverage purposes. Alcohol is second only to water in solvent value and is employed nearly in all industries. Alcohol in the basic raw material for the manufacture of numerous chemicals like acetaldehyde, acetic acid, ethyl acetate, ethylene dibromide, ethyl chloride glycol, etc. In alcohol industry the alcohol is manufactured in two ways: -

**By fermentation** – (conventional method).

**By chemical synthetic process-** (nonconventional method)

## ***Types of vinegar:***

- 1) White vinegar
- 2) Malt
- 3) Wine
- 4) Apple cider
- 5) Fruit
- 6) Rice vinegar



## ***Manufacture of alcohol [Experimental Process]***

We were used 2 different sources for production of alcohol.

### ***1) Sugar Beet Juice***

### ***2) Chickoo Juice (Achrassapota )***

Alcohol can be prepared from different raw materials which yields sugar after hydrolysis chickoo juice, sugar beet juice contain sugar for the production alcohol.

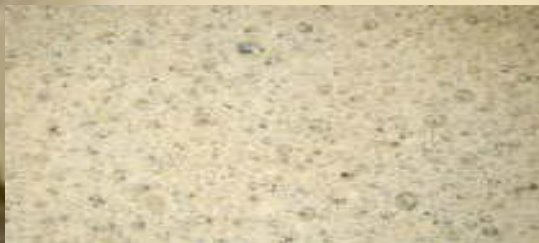
### ***Procedure:- Alcohol from Chickoo juice:-***

2-3 Chickoos are cut into slices and crushed. Then that crushed mass is filtered by using cotton cloth to obtain juice.

To maintain the concentration dilute the juice by adding few ml of distilled water & total 250 ml of juice was taken into flask.

Then cultured yeast solution (20ml) of beaker yeast is added in the above juice with 3g of glucose powder. We check the pH by the pH paper.

The flask was kept aside by covering tightly with cotton & aluminium foil paper allowed to ferment for 8-9 days at temp. 25°C-30°C.



## [Blowing bubbles in fermentable juice]



## Alcohol from chickoo juice by distillation

### ANALYSIS OF VINEGAR



❖ **Chemical Required :-** Sulphuric acid 3.3ml, Sodium/potassium dichromate 3.5 g, ethanol 1.5 ml,

#### **Procedure:-**

Place 5 ml of distilled water in the flask and then add 3.3 ml cone H<sub>2</sub>SO<sub>4</sub> acid slowly with constant shaking. Finally add 3.5 g of coarsely crushed sodium / potassium dichromate with a few pieces of porcelain. Then add mixture of 1.2 g ethanol and 6 ml water through dropping funnel slowly drop by drop with periodical vigorous shaking. At this stage the mixture becomes green owing to the formation of chromic sulphate Cr<sub>2</sub> (SO<sub>4</sub>)<sub>3</sub> in the above flask.

When the addition is complete heat the content of the flask on boiling water bath for 15 minutes & then distil this above mixture using wire gauze and collect the distillate containing acetic acid with some traces of acetaldehyde.

#### **Reaction of oxidation reaction:-**





Orange

+ 2K<sub>2</sub>SO<sub>4</sub> + 11 H<sub>2</sub>O green

**Observations** →

### Tests for Acetic acid (Vinegar)

Test	Observation	Inference
a) Solubility in water Liquid + H <sub>2</sub> O	Soluble in cold water	Oxalic acid, Acetic acid, Citric acid, Phenol are present.
b) Solubility in NaHCO <sub>3</sub>	Soluble with effervescence of CO <sub>2</sub> gas and reprecipitated by conc. HCl	Acid present.

### Action of Br<sub>2</sub> water:

Liquid + few drops of Br <sub>2</sub> water, shake.	Decolourisation without ppt.	Unsaturated Comp. eg. cinnamic acid.
Heating on copper gauze	Non sooty flame	Aliphatic compound.

**Detection of elements : (Sodium fusion test i.e. Lassaigne's Test):** Take a dry piece of freshly cut Sodium metal in a fusion tube. Heat the tube gently to melt the sodium metal. Add to it small quantity of the substance. Heat first slowly and then strongly until the tube is red hot. Drop it while red hot in the 15ml water taken in an evaporating dish. Repeat the procedure thrice. Then boil the contents of evaporating dish for 5-10 minutes and filter. Use this filtrate for the detection of N, S and halogen as follows:

Filtrate + Crystal of FeSO <sub>4</sub> + one drop of NaOH. Boil, Cool + 1-2 drops FeCl <sub>3</sub> and acidify with conc. HCl.	No green or blue ppt.	N absent.
Filtrate + few drops fresh sodium nitroprusside soln.	No intense purple colour	S absent.
Filtrate + 1:1 HNO <sub>3</sub> boil, cool + AgNO <sub>3</sub>	No white or yellow ppt.	Halogen absent.

Therefore The given organic compound contains C, H, and (O) elements.

### Detection of Functional Group :

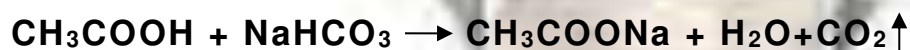
Compound + NaHCO <sub>3</sub> soln.	Effervescence of CO <sub>2</sub> turning lime water milky.	Carboxylic group present (-COOH)
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## ***Determination of Physical Constant :***

B.P of acetic acid from chickoo juice = 117<sup>0</sup>c (observed) =119<sup>0</sup>c (therotical)

There for the name of the compound is acetic acid

<b>Test</b>	<b>Observation</b>	<b>Inference</b>
Colour	Colourless	Carboxylic acid present
Sub.+ Saturated NaHCO <sub>3</sub> solution	Effervescence of CO <sub>2</sub> and reappear by conc. HCl	Acid present



## ***Summary & conclusions***

- Among the different fermentable materials, sugar beet gives better yield of ethanol after the process of fermentation of its juice using suitable ferments (beaker yeast)
- The oxidation of ethanol using mixture of potassium dichromate and conc. H<sub>2</sub>SO<sub>4</sub> gives acetic acid. In the above process potassium dichromate acts as an oxidizing agent and conc. H<sub>2</sub>SO<sub>4</sub> acts as catalyst.
- 10% solution of acetic acid is commonly known as vinegar which is used as cooking medium.
- Road side breath test is one of the noteworthy test used to detect the blood alcohol level in a drunken person.
- The largest use of ethyl alcohol is as a beverag

<b>Particulars</b>	<b>% of Ethyl Alcohol</b>
Wine	12% of ethyl alcohol
Beers	04 to 8% alcohol
Whisky & Brandy	40-50% ethyl alcohol

The alcoholic content of a beverage is indicated by a measure known as proof spirit which is twice the alcoholic content by volume.

- ❖ Drinking alcoholic beverages are injurious to the health. Prolonged, excessive intake of ethyl alcohol causes permanent liver, brain, heart, pancreas, lungs, kidney, and every other organ and tissue system.

- ❖ When ethyl alcohol is taken along with barbiturates or sedatives and anesthetics tranquillizers, it produces coma & may cause death.
- ❖ Alcohol is not stimulant. The stimulation occurs only because alcohol affects those portions of the brain that control the judgment.
- ❖ Pure alcohol is generally absorbed faster than diluted alcohol.
- ❖ Denatured alcohol is commercial ethanol with toxic substance, like pyridine (0-5%), methanol 10%, catechol bone oil, rubber thinner etc.
- ❖ Alcoholism is a family problem. Some typical problems include are guilt, shame, resentment, insecurity, financial problem, delinquency etc.

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