



'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.

DEPARTMENT OF MATHEMATICS

A Report On

*A CERTIFICATE COURSE IN
OPERATIONS RESEARCH*

Submitted To
Internal Quality Assurance Cell .
Year 2017-18

Shri Swami Vivekanand Shikshan Sanstha Kolhapur
Padmabhushan Dr. Vasantodada Patil Mahavidyalaya, Tasgaon
Tal-Tasgaon, Dist-Sangli-416312 (Maharashtra)
(Affiliated to Shivaji University, Kolhapur)

Department of Mathematics

Academic year 2017-2018

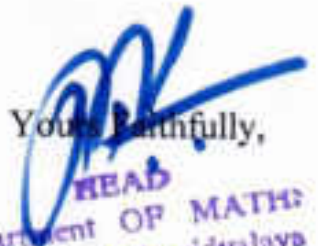
Notice

01/02/2018

All the students of are here by inform that, our college is going to start a certificate course entitled "A CERTIFICATE COURSE IN OPERATIONS RESEARCH" for this current academic year. All the students take admission as earlier.



(Mr.P. V.Patil)
Course Coordinator

Yours Faithfully,

HEAD
Department OF MATHS
P. D. V P. Mahavidyalaya
TASGAON (Sangli)

Shri Swami Vivekanand Shikshan Sanstha Kolhapur
Padmabhushan Dr. Vasantodada Patil Mahavidyalaya, Tasgaon
Tal-Tasgaon, Dist-Sangli-416312 (Maharashtra)

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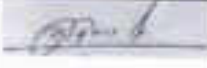
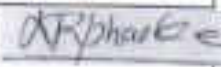
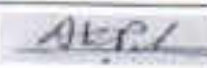
Department of Mathematics

Academic year 2017-2018

MEETING FOR SYLLABUS PREPARATION

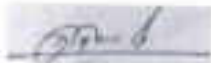
(B.O.S)

The meeting for preparation of syllabus of a CERTIFICATE COURSE IN OPERATIONS RESEARCH was held on 01/02/2018. The following members of the committee were present for the preparation of syllabus.

| Sr.No | Name | Designation | College name | Sign |
|-------|-----------------|-------------|-------------------------|---|
| 1 | Mr.P.V.Patil | Chairman | P.D.V.P.College,Tasgaon |  |
| 2 | Miss.N.R.Dhaske | Member | P.D.V.P.College,Tasgaon |  |
| 3 | Miss.A.K.Patil | Member | P.D.V.P.College,Tasgaon |  |

The syllabus for said course has been prepared and the copy of the same is enclosed here with for your kind information and further action.


Thanking you,



(Mr.P.V.Patil)

Course Coordinator

Yours Faithfully,


Department of MATHEMATICS
P. D. V P. Mahavidyalaya
TASGAON (Sangli)



"ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षणप्रसार" - शिक्षणमहर्षी डॉ. बापूजी साळुंखे
श्री स्वामी विवेकानंद शिक्षण संस्था, कोल्हापूर संघलित

पद्मभूषण डॉ. वसंतरावदादा पाटील महाविद्यालय

तासगाव, जिल्हा - सांगली, पिन - ४९६ ३९२ ☎ : STD : ०२३४६-२५०६६५, २५०५७५ FAX : २५०५७५

• शिवाजी विद्यापीठ, कोल्हापूर संलग्न •

ISO मानक १००१:२०१५

ई-मेल : san.pdvpm.tas@gmail.com वेबसाईट : www.pdvpmtasgaon.edu.in

• स्थापना सन - जून १९६२ • पी.डी.पे. ९४ • ज्यु. कॉलेज नं. जे २२-१०-००९ • सिनि. कॉलेज कोड नं. $\frac{SWACH}{X}$ जे: C-8



नेक पुण्यपांडित्य श्रेणी 'बी' (२०१६)

शिक्षणमहर्षी डॉ. बापूजी साळुंखे
पी.डी.पी.ए.पी.
संस्थापक

शा. वसंतराव (दादा) पाटील
जयशंकर श्री. कर्णिक
श्री. वसंतराव व. कर्णिक, कोल्हापूर श्रेणी, पद्मभूषण राज्य

प्राचार्य जयचक्रवर्ती साळुंखे
ए.ए.ए.
प्राचार्य

प्राचार्य डॉ. शुभांगी नावडे
ए.ए.ए.पी., पी.डी.
अध्यक्ष

डॉ. गिरीश ए.ए. हुजरे
ए.ए.ए.पी., पी.डी.
प्राचार्य

जावक क्र. : पी.डी.पी.ए.पी.ए.पी./

दिनांक : 15/01/2018

Prof. P. V. Patil

Department of Mathematics

P.D.V.P. College, Tasgaon.

Sub:- BOS/Syllabus Committee Meeting

Sir,

You are appointed as Member of Board of Studies (BOS) in Certificate Course in to be conducted in our college during academic year 2017-18.

The meeting of BOS is conveyed on **01/02/2018** for the preparation of syllabus of Certification course in A CERTIFICATE COURSE IN OPERATIONS RESEARCHSH You are kindly requested to attend the meeting at 11:00 am in IQAC Office.


IQAC Director
Tasgaon
P.D.V.P. Mahavidyalaya
IQAC Co-Ordinator


(Dr. R. B. Kumbhar)
Principal
Padmabhushan Dr. Vasanttraodada Patil
Mshavidyalaya, Tasgaon. (Sangli)



"ज्ञान, विज्ञान आणि सुसंस्कार यांचाही शिक्षणप्रसार" - शिक्षणमहर्षी डॉ. बापूजी साठुंबे

श्री स्वामी विवेकानंद शिक्षण संस्था, कोल्हापूर संघलित

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• शिवाजी विद्यापीठ, कोल्हापूर संलग्न •

ISO मानांकन १००१:२०१५

ई-मेल : san.pdvpm.tas@gmail.com वेबसाईट : www.pdvpm.tasgaon.edu.in

सेंट पुरंमूल्यांकन श्रेणी 'A' (2.75)

स्थापना सन - जून १९६२ • पी.बी.नं. १४ • ज्यु. कॉलेज नं. जे २२-१०-००१ • सिनि. कॉलेज कोड नं. $\frac{SWACH}{X}$ जे: C-8

शिक्षणमहर्षी डॉ. बापूजी साठुंबे
प्री.ए., पी.टी., पी.एच.डी.
संचालक

मा. चंद्रकांत (दादा) पाटील
अध्यक्ष पी.एच.डी.
श्री. वसुदेव व. शर्मा, संजयलाल शर्मा, वसुदेव पाटील

प्राचार्य अमरचक्रवर्त साठुंबे
एम.ए.
संचालक

प्राचार्य सौ. सुभाषी नावडे
एम.एड., पी.एच.डी.
संचालक

डॉ. मिलिंद एन. हुजरे
एम.एड., पी.एच.डी.
प्राचार्य

जाबक क्र. : पी.टी.व्ही.पी.एम.टी.०,

दिनांक : 15/01/2018

Prof. A. K. Patil
Department of Mathematics
P.D.V.P. College, Tasgaon.


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IQAC Co-Ordinator,
P.D.V.P. Mahavidyalaya,
Tasgaon.


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



"ज्ञान, विज्ञान आणि सुसंस्कार यांसाठी शिक्षणप्रसार" - शिक्षणमहर्षी डॉ. बापूजी साबुंबुखे
श्री स्वामी विवेकानंद शिक्षण संस्था, कोल्हापूर संघलित

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ई-मेल : san.pdvpm.tas@gmail.com वेबसाईट : www.pdvpmtasgaon.edu.in

नेक पुनर्मूल्यांकन बोधी "A" (2.70)

• स्थापना साल - जून १९६२ • पी.बी.नं. १४ • ज्यु. कॉलेज नं. जे २२-१०-००१ • सिमि. कॉलेज कोड नं. $\frac{SIAC14}{X}$ Jr: C-8

शिक्षणमहर्षी डॉ. बापूजी साबुंबुखे
पे.प. के.टी. डी.सि.पि.
संस्थापक

मा. चंद्रकांत (दादा) पाटील
जयराज बी.जी.पि.
सर्वांनी पदपूर्व व सर्वो. संघलित बोधी, पदपूर्व राज्य

प्राचार्य अण्णयकुमार साबुंबुखे
ए.प.प.
संस्थापक

प्राचार्य डॉ. सुभांगी नाचडे
ए.प.प.पि., बी.प.प.
सचिव

डॉ. निरंजित धरत. हुजरे
ए.प.प.पि., ए.प.प.पि.
प्राचार्य

जायक क्र. : पी.डी.व्ही.पी.एम.१/

दिनांक : 15/01/2018

Prof. N. R. Dhaske

Department of Mathematics

P.D.V.P. College, Tasgaon.


Sub:- BOS/Syllabus Committee Meeting

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IQAC Director,
P.D.V.P. Mahavidyalaya,
Tasgaon.


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

Department of Mathematics
Certificate Course CMCE -2017-18
[A CERTIFICATE COURSE IN OPERATIONS RESEARCH]
SYLLABUS

- [1] Diet Problem
- [2] Transportation Problem
- [3] Toys Factory Problem
- [4] Assignment Problem
- [5] North-West corner rule
- [6] Matrix minima method
- [7] Matrix maxima method
- [8] Vogel's Approximation method
- [9] LPP Problems
- [10] Feasible solutions



HEAD
Department OF MATHS
P. D. V. P. Mahavidyalaya
TASGAON (Sangli)

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

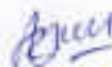
Department of Mathematics

B.Sc.-III Certificate Course Admission 2017-2018

| Sr. No. | Name of the students | | |
|---------|------------------------------|----|-----------------------------|
| | | 17 | MANE JYOTI BABASAHEB |
| 1 | AUNDHE PRAJAKTA NAGNATH | 18 | MANE PALLAVI PRAKASH |
| 2 | BABAR PRIYANKA LAXMAN | 19 | MORADE RUTUJA MAUTI |
| 3 | BABAR RESHMA MAHADEV | 20 | MORE SUPRIYA SAKHARAM |
| 4 | BABAR SNEHAL BHARAT | 21 | MOTE SUSHMA DILEEP |
| 5 | BABAR SUPRIYA SHANKARAO | 22 | PATIL AISHWARYA CHANDRAKANT |
| 6 | CHAVAN SUNIL RANGRAO | 23 | PATIL AMIT UTTAM |
| 7 | DAMATE AKSHAY ANIL | 24 | PATIL DIPAK MADHUKANT |
| 8 | DHABUGADE SNEHAL SANJAY | 25 | PATIL POOJA RAMCHANDRA |
| 9 | DOEKULE VISHWAJIT VISHWANATH | 26 | PATIL PRANALI ANIL |
| 10 | GHAIL SUPRIYA SANJAY | 27 | PATIL PRIYANKA KUNDALIK |
| 11 | HULWAN CHETAN UTTAM | 28 | PATIL PRIYANKA MANAJI |
| 12 | KHADE RESHMA KRISHNA | 29 | PATIL SAEESH DILIP |
| 13 | KHERADKAR PRIYANKA NAGESH | 30 | PATIL SHITAL SANJAY |
| 14 | KOSHTI VARSHARANI PRABHAKAR | 31 | PATIL SHUBHADA ANIL |
| 15 | LAD PRATIKSHA YAYAWANT | 32 | PATIL SNEHA DILIP |
| 33 | PATIL SURAJKUMAR DHONDIRAM | 54 | KOSHTI ARJUN DHANAJI |
| 34 | PATIL SUSHMITA TANAJI | 55 | KUKADE SAYALI SURESH |
| 35 | PATIL SWAPNALI ASHOK | 56 | KUMBHAR PRANOTI SURESH |
| 36 | PAWAR SUREKHA RAMCHANDRA | 57 | MALI UDAY UTTAM |


HEAD
Department OF MATHE
P. D. V. P. Mahavidyalaya
TASGAON (Sangli)

| | | | |
|----|------------------------------------|----|---------------------------|
| 37 | POTDAR SHUBHAM RAJENDRA | 58 | MANGLE SHIVTEJ VISHWANATH |
| 38 | RENDALKAR ARATI HANAMANT | 59 | MORE SUJIT SAMPAT |
| 39 | SANADI AYESHA MAHABUB | 60 | PATIL AJAY RAJARAM |
| 40 | SARVADE AMIT SUBHASH | 61 | PATIL AJINKYA DINKAR |
| 41 | SURYAWANSHI SHRADHA DNYANESHWAR | 62 | PATIL AKASH MAHADEV |
| 42 | THORABOLE RANI JAYSING | 63 | PATIL AMIT BALASAHEB |
| 43 | WAGHMODE PRATIKSHA SANJAY | 64 | PATIL AVINASH VITTHAL |
| 44 | ZAMBRE MANTHAN MANSING | 65 | PATIL PRADIP BALASAHEB |
| 45 | BAGAWADE AKSHAY ANILKUMAR | 67 | PATIL PRITESH MARUTI |
| 46 | CHAVAN RAHUL TANAJI | 68 | PATIL SURYAJI SANJAY |
| 47 | DHOTRE AKSHAY PANDURANG | 69 | PATIL SUPRIYA LAXMAN |
| 48 | JADHAV AJAY ANANDRAO | 70 | PATIL SWAPNIL JALINDAR |
| 49 | JADHAV AJIT ARUN | 71 | PATIL VAIBHAV PRALHAD |
| 50 | JADHAV DHEERAJ DATTATRAY | 72 | PAWAR AKASH BALASO |
| 51 | JADHAV OMKAR MAHADEV | 73 | PAWAR AKASH PARASHRAM |
| 52 | KONDALKAR SURAJ NARAYAN | 74 | PAWAR PANKAJ HANMANT |
| 53 | KORATE AVINASH LAXMAN | 75 | PAWAR TUSHAR TANAJI |
| 76 | SHINDE AJAY ANIL | 77 | SHINDE SUMIT SHASHIKANT |
| 78 | SWAMI PRATIBHA ASHOK | 79 | VELHAL AVADHUT RAMCHANDRA |
| 80 | WAGH SAGAR ANANDRAO | 81 | ZAMBRE VISHNU RAMCHANDRA |
| 82 | BHOSALE SNEHAL RAJARAM | 83 | DISALE SOURABH BALASAHEB |
| 84 | GHODAKE SANCHITA MAHADEV | 85 | JAMDADE AISHWARYA VIJAY |
| 86 | KUMBHAR ONKAR BALASO | 87 | MALI AISHWARYA SANJAY |


HEAD
 Department OF MATHS
 P. D. V. P. Mahavidyalaya,
 TASGAON, (Sangli)

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

Department of Mathematics

Title of Course: A CERTIFICATE COURSE IN OPERATIONS RESEARCH

Time Table for Certificate Course

Academic year 2017-18

Three Week Course [03 /02/ 2018 to 24/02/ 2018]


Time Table

18 Lectures 4.30 pm to 5.30 pm

| | |
|------------------|------------------|
| 03/02/2018 – PVP | 04/02/2018 – AKP |
| 05/02/2018 – NRD | 06/02/2018 – PVP |
| 08/02/2018 – PVP | 09/02/2018 – AKP |
| 10/02/2018 – NRD | 11/02/2018 – PVP |
| 13/02/2018 – PVP | 14/02/2018 – AKP |
| 15/02/2018 – NRD | 17/02/2018 – PVP |
| 18/02/2018 – PVP | 19/02/2018 – AKP |
| 21/02/2018 – NRD | 22/02/2018 – PVP |
| 23/02/2018 – PVP | 24/02/2018 – AKP |

Name of the Teachers:

- 1] Mr.P.V.Patil [PVP]
- 2] Miss.A.K.Patil [AKP]
- 3] Miss.N.R.Dhaske [NRD]


Department OF MATHS
P. D. V. P. Mahavidyalaya
TASGAON (Sangli)

Shri Swami Vivekanand Shikshan Sanstha Kolhapur
Padmabhushan Dr. Vasanttraodada Patil Mahavidyalaya, Tasgaon
Department of Mathematics

Title of Course: A CERTIFICATE COURSE IN OPERATIONS RESEARCH

Attendance Sheets

Academic year 2017-18

| Sr No | Name of the students | 3/2 | 4/2 | 5/2 | 6/2 | 7/2 | 8/2 | 9/2 | 10/2 | 11/2 | 12/2 | 13/2 | 14/2 | 15/2 | 16/2 | 17/2 | 18/2 | 19/2 | 20/2 |
|-------|------------------------------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 1 | AUNDHE PRAJAKTA NAGNATH | P | P | P | P | A | P | P | P | P | P | P | P | A | P | P | P | P | A |
| 2 | BABAR PRIYANKA LAXMAN | P | P | P | P | P | P | P | A | P | P | P | P | P | P | P | P | P | P |
| 3 | BABAR RESHMA MAHADEV | P | P | P | A | P | P | P | P | P | P | A | P | P | P | P | P | P | P |
| 4 | BABAR SNEHAL BHARAT | P | P | P | P | P | P | P | A | P | P | P | P | P | P | P | P | P | P |
| 5 | BABAR SUPRIYA SHANKARAO | P | P | P | P | A | P | P | P | P | P | P | P | P | P | P | P | P | P |
| 6 | CHAVAN SUNIL RANGRAO | P | P | P | P | P | P | P | P | P | A | P | P | P | P | P | P | P | P |
| 7 | DAMATE AKSHAY ANIL | P | P | P | P | P | P | A | P | P | P | P | P | P | P | P | P | P | P |
| 8 | DHABUGADE SNEHAL SANJAY | P | P | P | P | A | P | P | P | P | P | P | P | P | P | P | P | P | P |
| 9 | DOEKULE VISHWAJIT VISHWANATH | P | P | P | P | P | P | A | P | P | P | P | P | P | P | P | P | P | P |
| 10 | GHAIL SUPRIYA SANJAY | P | P | P | P | P | P | P | P | P | P | P | P | P | A | P | P | P | P |
| 11 | HULWAN CHETAN UTTAM | P | P | P | P | P | P | P | A | P | P | P | P | P | P | P | P | P | P |
| 12 | KHADE RESHMA KRISHNA | P | P | P | P | P | P | P | P | A | P | P | P | P | P | P | P | P | P |
| 13 | KHERADKAR PRIYANKA NAGESH | P | P | P | P | P | P | A | P | P | P | P | P | P | P | P | P | P | P |
| 14 | KOSHTI VARSHARANI PRABHAKAR | P | P | P | P | P | A | P | P | P | P | P | P | P | P | P | P | P | P |
| 15 | LAD PRATIKSHA YAYAWANT | P | P | P | P | P | P | P | P | P | P | A | P | P | P | P | P | P | P |
| 16 | PATIL SURAJKUMAR DHONDIRAM | P | P | P | P | P | P | A | P | P | P | P | P | P | P | P | P | P | P |
| 17 | PATIL SUSHMITA TANAJI | P | P | P | P | A | P | P | P | A | P | P | P | P | P | P | P | P | P |
| 18 | PATIL SWAPNALI ASHOK | P | P | P | P | P | P | P | P | A | P | P | P | P | A | P | P | P | P |
| 19 | PAWAR SUREKHA RAMCHANDRA | P | P | P | P | P | P | P | P | P | A | P | P | P | P | P | P | P | P |
| 20 | MANE JYOTI BABASAHEB | P | P | P | P | P | P | P | A | P | P | P | P | P | P | P | P | P | P |


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|----|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 | MANE PALLAVI PRAKASH | P | P | P | P | A | P | P | P | P | A | P | P | P | P |
| 22 | MORADE RUTUJA MAUTI | P | P | P | P | A | P | P | P | A | P | P | P | P | P |
| 23 | MORE SUPRIYA SAKHARAM | P | P | A | P | P | P | P | P | A | P | P | P | A | P |
| 24 | MOTE SUSHMA DILEEP | P | P | P | P | P | A | P | P | P | P | P | A | P | P |
| 25 | PATIL AISHWARYA CHANDRAKANT | P | P | P | A | P | P | P | P | A | P | P | P | P | P |
| 26 | PATIL AMIT UTTAM | P | P | P | P | A | P | P | P | P | P | P | A | P | P |
| 27 | PATIL DIPAK MADHUKANT | P | P | P | P | P | P | P | P | A | P | P | P | P | P |
| 28 | PATIL POOJA RAMCHANDRA | P | A | P | P | P | P | P | P | A | P | P | P | P | P |
| 29 | PATIL PRANALI ANIL | P | P | P | P | P | P | P | P | P | A | P | P | P | P |
| 30 | PATIL PRIYANKA KUNDALIK | P | P | P | P | A | P | P | P | P | A | P | P | P | P |
| 31 | PATIL PRIYANKA MANAJI | P | P | P | A | A | P | P | P | P | P | P | P | P | P |
| 32 | PATIL SAEESH DILIP | P | P | P | P | P | P | A | P | P | P | P | P | P | P |
| 33 | PATIL SHITAL SANJAY | P | P | P | P | P | P | P | A | P | P | P | P | P | P |
| 34 | PATIL SHUBHADA ANIL | P | A | P | P | P | A | P | P | P | P | P | P | P | P |
| 35 | PATIL SNEHA DILIP | P | P | P | P | P | P | A | P | P | P | P | P | P | P |
| 36 | KOSHTI ARJUN DHANAJI | P | P | P | P | P | P | P | P | P | P | P | P | P | P |
| 37 | KUKADE SAYALI SURESH | P | P | P | A | A | P | P | P | P | P | P | P | P | P |
| 38 | KUMBHAR PRANOTI SURESH | P | P | P | P | P | P | P | P | P | P | P | P | P | P |
| 39 | MALI UDAY UTTAM | P | P | P | P | P | A | P | P | P | P | P | P | P | P |
| 40 | POTDAR SHUBHAM RAJENDRA | P | P | P | A | P | P | P | P | P | P | A | P | P | P |
| 41 | RENDALKAR ARATI HANAMANT | P | P | P | P | P | A | A | P | P | P | P | P | P | P |
| 42 | SANADI AYESHA MAHABUB | P | A | P | P | P | P | P | P | P | P | P | P | P | P |
| 43 | SARVADE AMIT SUBHASH | P | P | P | P | A | P | P | P | P | P | P | P | P | P |
| 44 | SURYAWANSHI SHRADHA DNYANESHWAR | P | P | A | P | P | P | P | P | P | P | P | P | A | P |
| 45 | THORABOLE RANI JAYSING | P | P | P | P | P | P | A | P | P | P | P | P | P | P |
| 46 | WAGHMODE PRATIKSHA SANJAY | A | P | P | P | P | P | P | A | P | P | P | P | P | P |
| 47 | ZAMBRE MANTHAN MANSING | P | P | P | P | P | P | P | P | P | P | P | P | P | P |
| 48 | BAGAWADE AKSHAY ANILKUMAR | P | P | P | A | P | P | P | P | P | P | P | P | P | P |
| 49 | CHAVAN RAHUL TANAJI | P | P | P | P | P | A | P | P | P | P | P | P | P | P |


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|----|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50 | DHOTRE AKSHAY PANDURANG | P | P | P | P | A | P | P | P | P | P | P | P | P | P | P | P |
| 51 | JADHAV AJAY ANANDRAO | P | P | P | P | P | A | P | A | P | P | P | P | P | P | P | P |
| 52 | JADHAV AJIT ARUN | P | P | P | P | P | P | A | P | A | P | P | P | P | P | P | P |
| 53 | JADHAV DHEERAJ DATTATRAY | P | P | P | P | P | P | A | P | A | P | P | P | P | P | P | P |
| 54 | JADHAV OMKAR MAHADEV | P | P | P | P | P | P | P | A | P | A | P | P | P | P | P | P |
| 55 | KONDALKAR SURAJ NARAYAN | P | P | P | P | P | P | P | P | A | P | A | P | P | P | P | P |
| 56 | KORATE AVINASH LAXMAN | P | P | P | P | P | P | P | P | P | A | P | A | P | P | P | P |
| 57 | | | | | | | | | | | | | | | | | |
| 58 | SHINDE AJAY ANIL | P | P | P | P | P | P | P | P | P | P | A | P | A | P | P | P |
| 59 | SWAMI PRATIBHA ASHOK | P | P | P | P | P | P | P | P | P | P | P | A | P | A | P | P |
| 60 | WAGH SAGAR ANANDRAO | P | P | P | P | P | P | P | P | P | P | P | P | A | P | A | P |
| 61 | BHOSALE SNEHAL RAJARAM | P | P | P | P | P | P | A | P | A | P | P | P | P | A | P | A |
| 62 | GHODAKE SANCHITA MAHADEV | P | P | P | P | P | P | P | P | P | A | P | A | P | P | P | P |
| 63 | KUMBHAR ONKAR BALASO | P | P | P | P | P | P | P | A | P | A | P | P | P | P | P | P |
| 64 | MANGLE SHIVTEJ VISHWANATH | P | P | P | P | P | P | P | P | A | P | A | P | P | P | P | P |
| 65 | MORE SUJIT SAMPAT | P | P | P | P | P | P | P | P | A | P | A | P | P | P | P | P |
| 67 | PATIL AJAY RAJARAM | P | P | P | P | P | P | P | P | P | A | P | A | P | P | P | P |
| 68 | PATIL AJINKYA DINKAR | P | P | P | P | P | P | P | A | P | A | A | P | P | P | P | P |
| 69 | PATIL AKASH MAHADEV | P | P | P | P | P | P | A | P | A | P | P | P | P | P | P | P |
| 70 | PATIL AMIT BALASAHEB | P | P | P | P | P | P | P | P | A | P | A | P | P | P | P | P |
| 71 | PATIL AVINASH VITTHAL | P | P | P | P | P | P | P | P | P | A | P | A | P | P | P | A |
| 72 | PATIL PRADIP BALASAHEB | P | P | P | P | P | P | P | P | A | P | A | P | P | P | P | P |
| 73 | PATIL PRITESH MARUTI | P | P | P | P | P | P | P | P | A | P | A | P | P | P | P | P |
| 74 | PATIL SURYAJI SANJAY | P | P | P | P | A | P | P | P | P | P | P | P | P | P | P | P |
| 75 | PATIL SUPRIYA LAXMAN | P | P | P | P | P | A | P | A | P | P | P | P | P | P | P | P |
| 76 | PATIL SWAPNIL JALINDAR | P | P | P | P | A | P | A | P | A | P | P | P | P | P | P | P |
| 77 | PATIL VAIBHAV PRALHAD | P | P | P | P | P | A | P | A | P | P | P | P | P | P | P | P |
| 78 | PAWAR AKASH BALASO | P | P | P | P | P | P | P | P | A | P | A | P | P | P | P | P |
| 79 | PAWAR AKASH PARASHRAM | P | P | P | P | P | P | P | P | P | A | P | A | P | P | P | P |
| 80 | PAWAR PANKAJ HANMANT | P | A | P | P | P | P | P | P | P | P | P | P | P | P | P | P |


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| 81 | PAWAR TUSHAR TANAJI | P | P | P | P | P | P | P | P | A | P | P | P | P | P | P | P |
| 82 | SHINDE SUMIT SHASHIKANT | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P |
| 83 | VELHAL AVADHUT RAMCHANDRA | P | P | P | P | P | A | P | P | P | P | P | P | P | P | P | P |
| 84 | ZAMBRE VISHNU RAMCHANDRA | P | P | P | P | P | P | P | P | P | A | P | P | P | P | P | P |
| 85 | DISALE SOURABH BALASAHEB | P | P | P | P | P | P | A | P | P | P | P | P | P | P | P | P |
| 86 | JAMDARE AISHWARYA VIJAY | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P |
| 87 | MALI AISHWARYA SANJAY | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P |


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Shri Swami Vivekanand Shikshan Sanstha Kolhapur

Padmabhushan Dr. Vasanttraodada Patil Mahavidyalaya, Tasgaon
Tal-Tasgaon, Dist-Sangli-416312 (Maharashtra)

(Affiliated to Shivaji University, Kolhapur)

Department of Mathematics

Academic year 2017-2018

Notice

All the students are hear by informed that the examination of A
CERTIFICATE COURSE IN OPERATIONS RESEARSH certificate course will be held on
following time table wise.

| Day | Date | Time |
|--------|------------|---------------|
| Monday | 26/02/2018 | 12:00 to 2:00 |


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DEPARTMENT OF MATHEMATICS
PADMABHUSHAN DR VASANTRAODADA PATIL MAHAVIDYALAYA
TASGAON

CERTIFICATE COURSE

IN

"CERTIFICATE COURSE IN OPERATIONS RESEARCH"

Date:

Total marks: 50

Time: 11:00am to 01:00pm

Q. select correct alternative from the following.

1. Operations research came into existence.....
 - a) During world war I
 - b) During World war II
 - c) In the year 1950
 - d) In the year 1955

2. An abbreviation O.R. stands for.....
 - a) Operations Research
 - b) Operation Reports
 - c) Operating Research
 - d) None of the above

3. A LPP consists of.....
 - a) Decision variables
 - b) Objective function
 - c) Constraints and non-negativity restrictions
 - d) All of the above

4. The term LPP stands for
 - a) Linear processing problem
 - b) Linear programming problem
 - c) Logarithmic programming problem
 - d) None of the above

5. Which of the following is correct about LPP?
 - a) Objective function must be linear
 - b) All constraints must be linear
 - c) Decision variables must be non-negative
 - d) All of the above

6. Graphical method is used if there are only variables.


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- a) Four
- b) Three
- c) Two
- d) None of the above

7. The set of feasible solution to LPP is set

- a) Convex
- b) Concave
- c) Both a and b
- d) None of the above

8. In the standard form of LPP all constraints are of..... type

- a) Less than or equal to
- b) Greater than or equal to
- c) Equal to
- d) None of the above

9. Which technique is used in finding a solution for optimizing a given objective, such as profit maximization or cost reduction under certain constraints?


- A. Quailing Theory
- B. Waiting Line
- C. Both A and B
- D. Linear Programming

10. What is the objective function in linear programming problems?


- A. A constraint for available resource
- B. An objective for research and development of a company
- C. A linear function in an optimization problem
- D. A set of non-negativity conditions

11. Which statement characterizes standard form of a linear programming problem?


- A. Constraints are given by inequalities of any type
- B. Constraints are given by a set of linear equations
- C. Constraints are given only by inequalities of \geq type
- D. Constraints are given only by inequalities of \leq type


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12. Feasible solution satisfies
- A. Only constraints
 - B. only non-negative restriction
 - C. [a] and [b] both
 - D. [a], [b] and Optimum solution
13. In graphical method the restriction on number of constraint is.
- A. 2
 - B. not more than 3
 - C. 3
 - D. none of the above
14. In graphical representation the bounded region is known as region.
- A. Solution
 - B. basic solution
 - C. feasible solution
 - D. optimal
15. Graphical optimal value for Z can be obtained from
- A. Corner points of feasible region
 - B. Both a and c
 - C. corner points of the solution region
 - D. none of the above
16. In LPP the condition to be satisfied is
- A. Constraints have to be linear
 - B. Objective function has to be linear
 - C. none of the above
 - D. both a and b


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17. Identify the type of the feasible region given by the set of inequalities $x - y \leq 1$; $x - y \geq 2$ where both x and y are positive.
- A triangle
 - A rectangle
 - An unbounded region
 - An empty region
18. The feasible region of a linear programming problem has four extreme points: A (0,0), B(1,1), C(0,1), and D(1,0). Identify an optimal solution for minimization problem with the objective function $z = 2x - 2y$
- A unique solution at C
 - A unique solutions at D
 - An alternative solution at a line segment between A and B
 - An unbounded solution
19. The L.P.P. Min $z = -x + 2y$ subject to $-x + 3y \leq 10$, $x + y \leq 6$, $x - y \leq 2$, $x \geq 0$, $y \geq 0$ which of the following coordinate is not corner point of the region of the feasible solutions of above L.P.P. ?
- (0,0)
 - (4,2)
 - (2,4)
 - (1,2)
20. The L.P.P. Minimize $z = 50x + 75y$ Subject to $200x + 100y \geq 4000$ $2x + 3y \geq 50$ $40x + 35y \geq 2500$ $x \geq 0$, $y \geq 0$. has
- Unique Solution
 - No Solution
 - Unbounded Solution
 - Finitely Many Solution
21. Consider the LP problem:
 Max $Z = 10x_1 + 6x_2$
 Subject to the constraints: $5x_1 + 3x_2 \leq 30$; $x_1 + 2x_2 \leq 18$ and $x_1, x_2 \geq 0$.
 Then the LP has:
- No feasible solution


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- (B) Multi-feasible solutions
- (C) Unique feasible solution
- (D) Cannot say anything about solution

22. Consider the following LP program:

$$\text{Max } Z = -3x_1 + 2x_2$$

Subject to the constraints:

$$x_1 \leq 3, x_1 - x_2 \leq 0, x_1, x_2 \geq 0$$

Then the above LP problem has :

- (A) No feasible solution
- (B) Feasible solution
- (C) Unbounded solution
- (D) None of the above

23. Which of the following is not minimization problem?

- A. Diet Problem
- B. Transportation Problem
- C. Toys Factory Problem
- D. Assignment Problem

24. Slack Variables always added to inequalities.

- A. =
- B. \leq
- C. \geq
- D. $>$

25. Surplus Variables always added to inequalities

- A. =
- B. \leq
- C. \geq
- D. $<$


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26. The solution to a transportation problem with m -rows and n -columns is feasible if number of positive allocations is
- $m + n$
 - $m * n$
 - $m+n-1$
 - $m+n+1$
27. A transportation problem is said to be balanced if.....
- quantity demanded < quantity supplied
 - quantity demanded > quantity supplied
 - quantity demanded \neq quantity supplied
 - quantity demanded = quantity supplied
28. The transportation problem is Unbalanced if.....
- quantity demanded > quantity supplied
 - quantity demanded < quantity supplied
 - quantity demanded \neq quantity supplied
 - all of the above
29. The objective of the transportation problem is to the total cost.
- maximize
 - minimize
 - fix
 - none of the above
30. A transportation problem is a special type of.....
- LPP
 - assignment
 - both a and b
 - neither a and b
31. Which of the following method cannot be used to solve transportation problem?
- North-West corner rule
 - Matrix minima method
 - Vogel's Approximation method
 - Graphical method
32. Necessary and sufficient condition for existence of a feasible solution to a $m \times n$ transportation problem is....
- $\sum_{i=1}^m a_i = \sum_{j=1}^n b_j$
 - $\sum_{i=1}^m a_i > \sum_{j=1}^n b_j$
 - $\sum_{i=1}^m a_i < \sum_{j=1}^n b_j$
 - $\sum_{i=1}^m a_i \neq \sum_{j=1}^n b_j$


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33. In _____ method consider the least cost and next to least cost for solving transportation problem.
- A. North-west corner
 - B. Matrix minima
 - C. Vogel's Approximation Method
 - d. Row Minima method
34. The initial feasible solution of transportation problem obtained by..... method is very closer to optimum solution
- a. Matrix Minima
 - b. Vogel's Approximation
 - c. North-West corner rule
 - d. Row Minima
35. When the total supply is not equal to total demand in a transportation problem then it is called
- (a) Balanced
 - (b) Unbalanced
 - (c) Degenerate
 - (d) None of these
36. Transportation problem is called as
- A. maximization Problem
 - B. Distribution Problem
 - C. Both A and B
 - D. None of the above
37. In which method, Penalties are used to find feasible solution?
- a) North-west corner
 - b) Matrix minima
 - c) Vogel's Approximation Method
 - d) Row Minima method
38. Which of the following Method used to find optimal solution?
- A. VAM
 - B. Stepping stone Method
 - C. Unit cost penalty method
 - D. MODI Method


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39. If we were to use opportunity cost value for an unused cell to test optimality it should be

- A. equal to zero
- B. most negative number
- C. most positive number
- D. any value

40. One disadvantage of using North- West corner rule to find initial solution to the transportation problem is that

- A. It is complicated to use
- B. It does not take into account the cost of transportation
- C. It leads to degenerate initial solution
- D. all of the above

41. An algorithm used for solving an assignment problem is called

- a) Matrix Minima method
- b) Vogel's Approximation method
- c) Hungarian Algorithm
- d) Simplex method

42. An assignment problem is a special case of transportation problem in which number of origins is.....

- a) Equal to the number of destinations
- b) Greater than number of destinations
- c) less than number of destinations
- d) None of the above

43. The minimum number of line covering all zeros in a reduced cost matrix of order n can be.....

- a) At least n
- b) At most n
- c) $n-1$
- d) $n+1$

44. In making assignment which of the following should be preferred.....

- a) Only that row which have single zero
- b) Only that column which have single zero
- c) Only that row having more than one zero
- d) Only that column having more than one zero

45. The term idle time is used in.....

- a) LPP
- b) Assignment problem


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- c) Sequencing Problem
- d) Transportation Problem

46. An assignment problem is considered as a particular case of a transportation problem because

- A. The number of rows equals columns
- B. All $x_{ij} = 0$ or 1
- C. All rim conditions are 1
- D. All of the above

47. An optimal assignment requires that the maximum number of lines that can be drawn through squares with zero opportunity cost be equal to the number of

- A. Rows or columns
- B. Rows & columns
- C. Rows + columns - 1
- D. None of the above

48. While solving an assignment problem, an activity is assigned to a resource through a square with zero opportunity cost because the objective is to

- A. Minimize total cost of assignment
- B. Reduce the cost of assignment to zero
- C. Reduce the cost of that particular assignment to zero
- D. All of the above

49. The method used for solving an assignment problem is called

- A. Reduced matrix method
- B. MODI method
- C. Hungarian method
- D. None of the above

50. The purpose of a dummy row or column in an assignment problem is to


- A. Obtain balance between total activities & total resources
- B. Prevent a solution from becoming degenerate

Shri Swami Vivekanand Shikshan Sanstha Kolhapur
Padmabhushan Dr. Vasantodada Patil Mahavidyalaya, Tasgaon
Tal-Tasgaon, Dist-Sangli-416312 (Maharashtra)

Department of Mathematics

Academic year 2017-2018

| Sr. No. | Name of the students | Sign |
|---------|------------------------------|-------------|
| 1 | AUNDHE PRAJAKTA NAGNATH | Aundhe |
| 2 | BABAR PRIYANKA LAXMAN | P.Babar |
| 3 | BABAR RESHMA MAHADEV | R.Babar |
| 4 | BABAR SNEHAL BHARAT | S.Babar |
| 5 | BABAR SUPRIYA SHANKARAO | S.Babar |
| 6 | CHAVAN SUNIL RANGRAO | S.Chavan |
| 7 | DAMATE AKSHAY ANIL | A.Damate |
| 8 | DHABUGADE SNEHAL SANJAY | S.Dhabugade |
| 9 | DOEKULE VISHWAJIT VISHWANATH | N.V.Dokule |
| 10 | GHAIL SUPRIYA SANJAY | S.Ghail |
| 11 | HULWAN CHETAN UTTAM | Chulwan |
| 12 | KHADE RESHMA KRISHNA | R.Khade |
| 13 | KHERADKAR PRIYANKA NAGESH | P.Kheradkar |
| 14 | KOSHTI VARSHARANI PRABHAKAR | V.Koshti |
| 15 | LAD PRATIKSHA YAYAWANT | P.Lad |
| 16 | PATIL SURAJKUMAR DHONDIRAM | S.Patil |
| 17 | PATIL SUSHMITA TANAJI | S.Patil |
| 18 | PATIL SWAPNALI ASHOK | S.Patil |
| 19 | PAWAR SUREKHA RAMCHANDRA | S.Pawar |
| 20 | MANE JYOTI BABASAHEB | J.Mane |
| 21 | MANE PALLAVI PRAKASH | P.Mane |
| 22 | MORADE RUTUJA MAUTI | R.Morade |
| 23 | MORE SUPRIYA SAKHARAM | S.More |


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|----|---------------------------------|--------------|
| 24 | MOTE SUSHMA DILEEP | Spmate |
| 25 | PATIL AISHWARYA CHANDRAKANT | APatil |
| 26 | PATIL AMIT UTTAM | APPatil |
| 27 | PATIL DIPAK MADHUKANT | DPatil |
| 28 | PATIL POOJA RAMCHANDRA | PPatil |
| 29 | PATIL PRANALI ANIL | PPPatil |
| 30 | PATIL PRIYANKA KUNDALIK | P.P. Patil |
| 31 | PATIL PRIYANKA MANAJI | PPPatil |
| 32 | PATIL SAEESH DILIP | SPatil |
| 33 | PATIL SHITAL SANJAY | SPPatil |
| 34 | PATIL SHUBHADA ANIL | SPPatil |
| 35 | PATIL SNEHA DILIP | SPPatil |
| 36 | KOSHTI ARJUN DHANAJI | AKoshti |
| 37 | KUKADE SAYALI SURESH | SKukade |
| 38 | KUMBHAR PRANOTI SURESH | PKumbar |
| 39 | MALI UDAY UTTAM | UMali |
| 40 | POTDAR SHUBHAM RAJENDRA | SPotdar |
| 41 | RENDALKAR ARATI HANAMANT | A. Rendalkar |
| 42 | SANADI AYESHA MAHABUB | ASanadi |
| 43 | SARVADE AMIT SUBHASH | ASarvade |
| 44 | SURYAWANSHI SHRADHA DNYANESHWAR | SSuryawanshi |
| 45 | THORABOLE RANI JAYSING | RTThorabole |
| 46 | WAGHMODE PRATIKSHA SANJAY | PWaghmode |
| 47 | ZAMBRE MANTHAN MANSING | MZambre |
| 48 | BAGAWADE AKSHAY ANILKUMAR | ABhawan |
| 49 | CHAVAN RAHUL TANAJI | ACHavan |
| 50 | DHOTRE AKSHAY PANDURANG | ADhotre |
| 51 | JADHAV AJAY ANANDRAO | AJadhav |
| 52 | JADHAV AJIT ARUN | AJadhav |
| 53 | JADHAV DHEERAJ DATTATRAY | DJadhav |
| 54 | JADHAV OMKAR MAHADEV | OMJadhav |


READ

Department OF MATHS
P. D. V. P. Mahaviyalaya,
TASGAON. (Sangli)

| | | |
|----|---------------------------|--------------------|
| 55 | KONDALKAR SURAJ NARAYAN | <i>S Kondalkar</i> |
| 56 | KORATE AVINASH LAXMAN | <i>A.L. Korate</i> |
| 58 | SHINDE AJAY ANIL | <i>Ashinde</i> |
| 59 | SWAMI PRATIBHA ASHOK | <i>Patil</i> |
| 60 | WAGH SAGAR ANANDRAO | <i>S. Wagh</i> |
| 61 | BHOSALE SNEHAL RAJARAM | <i>S. Bhosale</i> |
| 62 | GHODAKE SANCHITA MAHADEV | <i>G. Ghodake</i> |
| 63 | KUMBHAR ONKAR BALASO | <i>O. Kumbhar</i> |
| 64 | MANGLE SHIVTEJ VISHWANATH | <i>S. Mangle</i> |
| 65 | MORE SUJIT SAMPAT | <i>S. More</i> |
| 67 | PATIL AJAY RAJARAM | <i>A. Patil</i> |
| 68 | PATIL AJINKYA DINKAR | <i>A. Patil</i> |
| 69 | PATIL AKASH MAHADEV | <i>A. Patil</i> |
| 70 | PATIL AMIT BALASAHEB | <i>A. Patil</i> |
| 71 | PATIL AVINASH VITTHAL | <i>A. Patil</i> |
| 72 | PATIL PRADIP BALASAHEB | <i>P. Patil</i> |
| 73 | PATIL PRITESH MARUTI | <i>P. Patil</i> |
| 74 | PATIL SURYAJI SANJAY | <i>S. Patil</i> |
| 75 | PATIL SUPRIYA LAXMAN | <i>S. Patil</i> |
| 76 | PATIL SWAPNIL JALINDAR | <i>S. Patil</i> |
| 77 | PATIL VAIBHAV PRALHAD | <i>V. Patil</i> |
| 78 | PAWAR AKASH BALASO | <i>A. Pawar</i> |
| 79 | PAWAR AKASH PARASHRAM | <i>A. Pawar</i> |
| 80 | PAWAR PANKAJ HANMANT | <i>P.H. Pawar</i> |
| 81 | PAWAR TUSHAR TANAJI | <i>T. Pawar</i> |
| 82 | SHINDE SUMIT SHASHIKANT | <i>S. Shinde</i> |
| 83 | VELHAL AVADHUT RAMCHANDRA | <i>A. Velhal</i> |
| 84 | ZAMBRE VISHNU RAMCHANDRA | <i>V. Zambre</i> |
| 85 | DISALE SOURABH BALASAHEB | <i>S. Disale</i> |
| 86 | JAMDADE AISHWARYA VIJAY | <i>J.A.V.</i> |
| 87 | MALI AISHWARYA SANJAY | <i>A. Mali</i> |

[Signature]

HEAD
Department OF MATHS
P. D. V. P. Mahavidyalaya
TASGAON (Sangli)

Department of Mathematics


Academic year 2017-2018

RESULT ANALYSIS

| Sr.No. | Name of the students | Marks out of 50 | Result |
|--------|---------------------------------|-----------------|--------|
| 1 | AUNDHE PRAJAKTA NAGNATH | 23 | PASS |
| 2 | BABAR PRIYANKA LAXMAN | 34 | PASS |
| 3 | BABAR RESHMA MAHADEV | 42 | PASS |
| 4 | BABAR SNEHAL BHARAT | 45 | PASS |
| 5 | BABAR SUPRIYA SHANKARAO | 44 | PASS |
| 6 | CHAVAN SUNIL RANGRAO | 40 | PASS |
| 7 | DAMATE AKSHAY ANIL | 46 | PASS |
| 8 | DHABUGADE SNEHAL SANJAY | 32 | PASS |
| 9 | DOEKULE VISHWAJIT VISHWANATH | 34 | PASS |
| 10 | GHAIL SUPRIYA SANJAY | AB | AB |
| 11 | HULWAN CHETAN UTTAM | 32 | PASS |
| 12 | KHADE RESHMA KRISHNA | 38 | PASS |
| 13 | KHERADKAR PRIYANKA NAGESH | 38 | PASS |
| 14 | KOSHTI VARSHARANI PRABHAKAR | 40 | PASS |
| 15 | LAD PRATIKSHA YAYAWANT | 40 | PASS |


- HEAD
Department OF MATHS
P. D. V. P. Mahavidyalaya
TASGAON. (Sangli)

| | | | |
|----|--------------------------------|----|------|
| 16 | MALI TEJASVI PRAKASH | 40 | PASS |
| 17 | MANE JYOTI BABASAHEB | 40 | PASS |
| 18 | MANE PALLAVI PRAKASH | 12 | PASS |
| 19 | MORADE RUTUJA MAUTI | 34 | PASS |
| 20 | MORE SUPRIYA SAKHARAM | 40 | PASS |
| 21 | MOTE SUSHMA DILEEP | 38 | PASS |
| 22 | PATIL AISHWARYA CHANDRAKANT | 40 | PASS |
| 23 | PATIL AMIT UTTAM | 40 | PASS |
| 24 | PATIL DIPAK MADHUKANT | 42 | PASS |
| 25 | PATIL POOJA RAMCHANDRA | 32 | PASS |
| 26 | PATIL PRANALI ANIL | AB | AB |
| 27 | PATIL PRIYANKA KUNDALIK | 30 | PASS |
| 28 | PATIL PRIYANKA MANAJI | 38 | PASS |
| 29 | PATIL SAEESH DILIP | 38 | PASS |
| 30 | PATIL SHITAL SANJAY | 28 | PASS |
| 31 | PATIL SHUBHADA ANIL | 42 | PASS |
| 32 | PATIL SNEHA DILIP | 38 | PASS |
| 33 | PATIL SURAJKUMAR DHONDIRAM | 36 | PASS |
| 34 | PATIL SUSHMITA TANAJI | AB | AB |
| 35 | PATIL SWAPNALI ASHOK | 38 | PASS |
| 36 | PAWAR SUREKHA RAMCHANDRA | AB | AB |


HEAD
 Department OF MATHS
 F. D. V. P. Mahavidyalaya
 TARGAON. (Sangli)

| | | | |
|----|------------------------------------|----|------|
| 37 | POTDAR SHUBHAM RAJENDRA | 34 | PASS |
| 38 | RENDALKAR ARATI HANAMANT | AB | AB |
| 39 | SANADI AYESHA MAHABUB | AB | AB |
| 40 | SARVADE AMIT SUBHASH | 36 | PASS |
| 41 | SURYAWANSHI SHRADHA DNYANESHWAR | AB | AB |
| 42 | THORABOLE RANI JAYSING | 45 | PASS |
| 43 | WAGHMODE PRATIKSHA SANJAY | 42 | PASS |
| 44 | ZAMBRE MANTHAN MANSING | 34 | PASS |
| 45 | BAGAWADE AKSHAY ANILKUMAR | 42 | PASS |
| 46 | CHAVAN RAHUL TANAJI | 48 | PASS |
| 47 | DHOTRE AKSHAY PANDURANG | 44 | PASS |
| 48 | JADHAV AJAY ANANDRAO | 40 | PASS |
| 49 | JADHAV AJIT ARUN | 46 | PASS |
| 50 | JADHAV DHEERAJ DATTATRAY | 32 | PASS |
| 51 | JADHAV OMKAR MAHADEV | 34 | PASS |
| 52 | KONDALKAR SURAJ NARAYAN | AB | AB |
| 53 | KORATE AVINASH LAXMAN | 32 | PASS |
| 54 | KOSHTI ARJUN DHANAJI | 38 | PASS |
| 55 | KUKADE SAYALI SURESH | 38 | PASS |


 HEAD
 Department of Maths
 P. D. V. P. Mahavidyalaya
 T. ASGAON (Sangli)

| | | | |
|----|------------------------------|----|------|
| 56 | KUMBHAR PRANOTI SURESH | 40 | PASS |
| 57 | MALI UDAY UTTAM | 40 | PASS |
| 58 | MANGLE SHIVTEJ VISHWANATH | 40 | PASS |
| 59 | MORE SUJIT SAMPAT | 40 | PASS |
| 60 | PATIL AJAY RAJARAM | 50 | PASS |
| 61 | PATIL AJINKYA DINKAR | 34 | PASS |
| 62 | PATIL AKASH MAHADEV | 40 | PASS |
| 63 | PATIL AMIT BALASAHEB | 38 | PASS |
| 64 | PATIL AVINASH VITTHAL | 40 | PASS |
| 65 | PATIL PRADIP BALASAHEB | 40 | PASS |
| 67 | PATIL PRITESH MARUTI | 42 | PASS |
| 68 | PATIL SURYAJI SANJAY | 40 | PASS |
| 69 | PATIL SUPRIYA LAXMAN | 40 | PASS |
| 70 | PATIL SWAPNIL JALINDAR | 40 | PASS |
| 71 | PATIL VAIBHAV PRALHAD | 40 | PASS |
| 72 | PAWAR AKASH BALASO | 50 | PASS |
| 73 | PAWAR AKASH PARASHRAM | 34 | PASS |
| 74 | PAWAR PANKAJ HANMANT | 40 | PASS |
| 75 | PAWAR TUSHAR TANAJI | 38 | PASS |
| 76 | SHINDE AJAY ANIL | 40 | PASS |
| 77 | SHINDE SUMIT SHASHIKANT | 40 | PASS |
| 78 | SWAMI PRATIBHA ASHOK | 49 | PASS |


HEAD
 Department of Maths
 P. D. V. P. Mahavidyalaya
 TASGAON (Sawali)

| | | | |
|----|------------------------------|----|------|
| 79 | VELHAL AVADHUT RAMCHANDRA | 48 | PASS |
| 80 | WAGH SAGAR ANANDRAO | 34 | PASS |
| 81 | ZAMBRE VISHNU RAMCHANDRA | 40 | PASS |
| 82 | BHOSALE SNEHAL RAJARAM | 38 | PASS |
| 83 | DISALE SOURABH BALASAHEB | 40 | PASS |
| 84 | GHODAKE SANCHITA MAHADEV | 40 | PASS |
| 85 | JAMDADDE AISHWARYA VIJAY | 42 | PASS |
| 86 | KUMBHAR ONKAR BALASO | 40 | PASS |
| 87 | MALI AISHWARYA SANJAY | 40 | PASS |

Shri Swami Vivekanand Shikshan Sanstha Kolhapur

Padmabhushan Dr. Vasanttraodada Patil Mahavidyalaya, Tasgaon


Department of Mathematics

Academic year 2017-2018

RESULT ANALYSIS

RANKERS

| Sr. No. | Name of the student | Total Marks | Rank |
|----------------|----------------------------|--------------------|-------------------|
| 1 | PAWAR AKASH BALASO | 50 | I st |
| 2 | SWAMI PRATIBHA ASHOK | 49 | II nd |
| 3 | CHAVAN RAHUL TANAJI | 48 | III rd |


HEAD
 Department OF MATHS
 P. D. V. P. Mahavidyalaya
 TASGAON (Sangli)

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

Tal-Tasgaon, Dist-Sangli-416312 (Maharashtra)

(Affiliated to Shivaji University, Kolhapur)


2017-2018

This is to Certify that Mr. /Miss. _____

*Mother's name _____ has passed the
certificate course in A CERTIFICATE COURSE IN OPERATIONS RESEARCH in _____
_____ Class in the year _____ The examination of which was
held in April _____*

This said certificate has been issued to him/her at Tasgaon (Dist-Sangli)

Co-Ordinator


HEAD
Department OF MATHS
P. D. V. P. Mahavidyalaya
TASGAON (Sangli)

Principal