

Academic Year 2020-21

Bridge Course Syllabus for B.Sc. I Students

Zoology:

1. Human Physiology
2. Useful insects

Botany

1. Plants in human wellbeing
2. Botanical techniques

Microbiology

1. Role of micro-organism in day-to-day life
2. Harmful activities of micro-organism

Geology

1. GIS applications in various fields of geology
2. Use of flame-photometer

Physics

1. Thermal physics
2. Scalar and Vectors

Chemistry

1. Primary and secondary standards

Mathematics and statistic:

Differential equations

Calculation of standardization, mean, mode, median

Electronics:

Fundamental of digital electronics

Fundamentals of analog electronics

RJARAM COLLEGE, KOLHAPUR

BRIDGE COURSE For B. SC. I

2020-21

TIME	Monday 8/12/2020	Tuesday 09/12/2020	Monday 10/12/2020	Tuesday 11/12/2020	Friday 12/12/2020	Monday 14/12/202	Tuesday 15/12/2020	Wednesday 16/12/2020	Thursday 17/12/2020	Friday 18/12/20
2.10 to 3.00 am	Group B Zoology	Zoology	Botany	Botany	Microbiology	Microbiology	Geology	Geology	Chemistry	Chemistry
TIME 2.10 to 3.00 am	Group A Geology	Geology	Physics	Physics	Chemistry	Chemistry	Electronics	Electronics	Statistics	Mathematics

Ayapati
Co-ordinator

Bridge course, Diagnostic Test,
Certificate course, Human values and Ethics

wsp hte
IQAC Co-ordinator
Rajaram College,
Kolhapur

ASD
Principal
Rajaram College,
Kolhapur

Rajaram College, Kolhapur

**Diagnostic Test, Bridge Course, Certificate Course and Human Values and Ethics
Committee**

Notice

4/12/2021

All the Head of Department are hereby requested to conduct the bridge course lectures for B. Sc. First year students according to the given time-table and submit the attendance report to the following committee members,

For Science departments: Dr. A. P. Parale (B Group)

Dr. A. U. Patil (A Group)


Co-ordinator

Rajaram College, Kolhapur

**Diagnostic Test, Bridge Course, Certificate Course and Human Values and Ethics
Committee**

Notice

15/02/2021

A meeting of all member of Diagnostic Test, Bridge Course, Certificate Course and Human Values and Ethics Committee is arranged on 17/2/2021 at 12.15 pm in Common staff room-main building. All members are requested to attended the same.

Agenda:

1. To schedule the diagnostic test for current academic year.
2. To review bridge course lectures conducted by various departments
3. To review the certificate and human value and ethics courses conducted in previous year.
4. To discuss about certificate course and Human value and ethics.

Committee members:

1. Dr. S. V. Rode

— 

2. Smt. N. N. Lad

— 


3. Dr. A. P. Parale

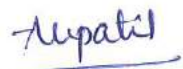
— 

4. Shri. S.S. Gade

— 

5. Smt. V. M. Ingole

— 


Co-ordinator

RAJARAM COLLEGE, KOLHAPUR

DEPARTMENT OF ZOOLOGY

B. SC. I

ROLL CALL (2020-2021)

Human
Physiol-
ogy Desai
Insects

Sr. No.	Roll No.	Last Name	First Name	Middle Name	Date 08/12/20	Date 09/12/20	Date	Date	Date	Date
1	127	Ajate	Aadesh	Ashok	P	-				
2	128	Benake	Akanksha	Ganapati	P	P				
3	129	Bhalkar	Shrikrishna	Shamrao	P	-				
4	130	Bhoi	Sejal	Anil	-	P				
5	131	Bhoite	Snehal	Dhanaji	P	-				
6	132	Bhosale	Pradumna	Rajendra	P	P				
7	133	Bukam	Bhakti	Baburao	-	P				
8	134	Chavan	Pranali	Pravin	-	P				
9	135	Desai	Gayatri	Balasaheb	P	-				
10	136	Doiphode	Dhanashri	Ramesh	-	P				
11	137	Erukali	Vinay Kumar	Venkataiah	P	P				
12	138	Gavali	Amruta	Shashikant	-	-				
13	139	Gothankar	Swati	Laxman	P	P				
14	140	Gurav	Vishwajit	Vijay	P	-				
15	141	Gurav	Atharv	Rahul	-	P				
16	142	Honmude	Mahesh	Satish	-	P				
17	143	Humbe	Priyanka	Ramchandra	-	-				
18	144	Ingavale	Tejas	Dayasagar	-	P				
19	145	Jadhav	Rutuja	Ramesh	P	P				
20	146	Kale	Aniruddha	Mahesh	P	P				
21	147	Kamble	Vishal	Nandkumar	P	-				
22	148	Kamble	Tejas	Kiran	P	P				
23	149	Kamble	Yash	Vinod	P	P				
24	150	Kamble	Sourabh	Namdev	-	-				
25	151	Karavade	Siddhi	Chandrashekhar	-	P				
26	152	Khabade	Niraj	Narendra	P	-				
27	153	Korgaonkar	Haripriya	Ranjit	P	P				
28	154	Kumbhar	Ganesh	Rajendra	P	P				
29	155	Kumbhar	Mayuri	Sanjay	-	P				
30	156	Kumbhar	Anjali	Rajendra	P	-				
31	157	Mahat	Nihal	Dilawar	-	P				
32	158	Mali	Shubham	Dhanaji	-	P				
33	159	Malvekar	Radhika	Rajendra	P	-				
34	160	Mandavakar	Sanjana	Sachin	P	P				
35	161	More	Siddhi	Sanjay	-	P				
36	162	Mungurwade	Niket	Ganagaram	-	-				
37	163	Nagtilak	Vaibhav	Shrimant	P	P				
38	164	Naik	Atharva	Ajay	P	P				

87	213	Kandurkar	Rutik	Bajirao	P	-				
88	214	Katkar	Vaishnavi	Balaso	P	P				
89	215	Katware	Dipak	Sanjay	P	P				
90	216	Khandagale	Anuradha	Yuvraj	P	-				
91	217	Kharat	Karan	Ramesh	-	P				
92	218	Kotkar	Akanksha	Narayan	P	P				
93	219	Kumbhar	Rushikesh	Janardan	P	P				
94	220	Magdum	Shivraj	Pratap	P	-				
95	221	Mangore	Amruta	Ananda	-	P				
96	222	Mardane	Supriya	Shivaji	-	P				
97	223	Mude	Kaushik	Vinod	P	-				
98	224	Naik	Anand	Maruti	P	P				
99	225	Nalawade	Hindavi	Shivaji	-	-				
100	226	Nangare	Trupti	Bhimrao	-	P				
101	227	Parit	Shubham	Girish	P	P				
102	228	Parit	Rutuja	Babaso	P	P				
103	229	Patil	Darshana	Dattatray	P	-				
104	230	Patil	Disha	Dilip	-	P				
105	231	Patil	Dhanashri	Popat	P	P				
106	232	Patil	Tejas	Baburao	-	-				
107	233	Patil	Janhvi	Anil	P	P				
108	234	Patil	Swaranjali	Rajendra	P	-				
109	235	Powar	Manali	Manohar	-	P				
110	236	Powar	Onkar	Mohan	P	-				
111	237	Rane	Sanika	Maruti	P	P				
112	238	Sadolkar	Onkar	Prakash	-	-				
113	239	Sargar	Surekha	Nanaso	P	P				
114	240	Shinde	Adarsh	Hemant	P	P				
115	241	Surve	Swapnagandha	Madhusudan	P	-				
116	242	Sutar	Vaibhav	Dinkar	P	P				
117	243	Sutar	Prajakta	Tanaji	P	P				
118	244	Tawar	Pranil	Pralhad	-	-				
119	245	Tondale	Aniket	Anil	P	P				
120	246	Toraskar	Pragati	Tanaji	P	-				
121	247	Tovar	Ganesh	Shivaji	P	P				
122	248	Varekar	Sonali	Sakharam	P	P				
123	249	Wadkar	Divyarani	Deepak	-	-				
124	250	Yedage	Shamal	Deepak	P	R				
125	251	Chavan	Rutuja	Vikas	-	-				
126	252	Khulape	Sanskriti	Vinod	P	P				
127	273	Jadhav	Rutuja	Kisan	P	-				
128	274	Khichade	Bhakti	Bahubali	-	P				
129	275	Magar	Aditi	Anil	P	-				
130	276	Mane	Tanvi	Ramchandra	P	P				
131	277	Maner	Maysa	Gufran	-	-				
132	278	Shekhar	Swapnil	Ashok	P	P				
133	279	Shende	Abhishek	Sunil	P	P				
134	280	Tamboli	Simaran	Hasan	P	-				

Bridge Course Attendance Dir-A

Sr. No.	Roll No.	Name of Student	12/10/2020	12/11/2020
1	62	Niranjan shrikant mali	P	P
2	0	Karan Sharma	P	P
3	18	Gautami Eknath Kamble.	P	P
4	06	meenaz Choudhary.Mohammed Hasan	P	P
5	310	Pramod Korane	P	P
6	11	Chaitanya Gurav	P	AB
7	53	Avadhoot Jadhav	P	P
8	12	Gurav Puja Sanjay	P	P
9	323	kaustubh bhuingade	P	P
10	40	Vaishnavi Tirale	P	P
11	114	Sanket shanbhag	P	P
12	94	Ujwala Maruti chougule	P	P
13	48	Diksha H Chougule	P	P
14	79	Tulsi manik shingare	AB	P
15	78	Nikita shrikant shinde	P	P
16	19	Sakshi Subhash Kate	P	P
17	312	Shruti Tanaji Patil	P	P
18	13	Neha jade	P	P
19	70	Rohit tanaji patil	P	P
20	311	Komal Subhash kumbhar	P	P
21	10	Harshad Fegade	P	P
22	98	Sujal Bhikkhu Kale	P	AB
23	75	Akash.s. Rajpurohit	P	P
24	95	Bhakti dipak gote	P	P
25	111	Amruta Anil Patil	P	P
26	58	Harshvardhan Ashok kawade	P	P
27	56	ADINATH MADHUKAR KAMBLE	P	P
28	109	Yogita Nilkantha Patil	AB	P
29	306	Janhavi Sanjay Deshmukh	AB	P
30	119	Pankaj Tippe	P	P
31	34	Gayatri Sudhir Sawant	P	P
32	90	Shivani Jaysing Bogar	P	P
33	88	Alavekar Anagha Mohan	P	P
34	93	Chougule Sakshi Popat	P	P
35	113	Sukesh Sanjay Powar	P	P
36	102	Mitali Dhananjay Lad	P	P
37	71	Shreya Rajen Patil	P	P
38	37	Sutar pradnya yuvaraj	P	AB
39	46	Sourabh Chougale	P	P
40	07	Karuna Nitin Desai.	P	P
41	107	Shraddha prakash patil	P	P
42	22	Ishwari Nimbalkar	P	P
43	3	Sanika Subhash Bhosale	P	P
44	315	Tushar Shankar Sutar	P	P
45	54	Sourabh Sudhakar Jadhav	P	P
46	327	Varada Milind Patwardhan	AB	P
47	15	Namrata Ravindra Jadhav	P	P
48	324	NAMDEV MONAPPA CHOUGULE	P	P
49	68	Anurag Ajit Patil	P	P
50	69	Rohit anil Patil	P	P
51	52	Jadhav Ganesh Tatoba	P	P
52	65	Aditya Laxman Parit	P	P
53	118	Tade Shweta Shivaji	AB	P
54	25	Kalyani Bajirao Patil	P	P

55	303	Om Mohan Chavan	P	P
56	316	Shrishail ulegaddi	P	P
57	113	Tushar Ananda Patil	P	P
58	02	Gayatri Shrikant Balekundri	P	P
59	21	Amruta Shivaji Killedar	P	P
60	38	Ashish Ravi Sutar	P	P
61	28	Yashvardhan .S. Patil	P	P
62	01	Mayuri Awale	P	P
63	253	Vivek namdeo patil	P	P
64	8	Rutuja Ramesh Dhonukshe	AB	P
65	92	Rajnish Namdev chougale	P	P
66	304	Adesh Gangaram Chougale	P	P
67	108	Anish	P	P
68	21	Dr. Ketaki Ketan Patankar	P	P
69	117	Anant Jaywant Shinge	P	P
70	26	Amruta baburao patil	P	P
71	14	Sharvari Ramkrishna Jadhav	P	P
72	29	PRAJAKTA JAYSING PATIL	P	P
73	101	Lingeshwar Yashwant kulal	P	P
74	31	Soham Ramesh powar	P	P
75	33	Pallavi Gunaji Rane	P	P
76	81	Karan	P	P
77	106	Pruthviraj Jaywant Patade	P	P
78	89	Rohan Jayavant Bhavad	P	P
79	4	Bhushan Pandurang Bornak	P	P
80	30	Abhishek Chandrakant Patole	P	P
81	24	Tejas sdiram patil	P	P
82	39	prajakta Yuvaraj Tandale	P	P
83	120	UJJWAL SHANKAR WAHILE	P	P
84	100	Shruti Sachin Kokate	P	P
85	313	Swapnali pratap patil	P	P
86	82	Ankita Yashwant Thorwat	P	AB
87	43	Shraddha uday acharya	P	P
88	64	Vaishnavi vasant Mane	P	P
89	17	Omkar Abasaheb Kamble	AB	P
90	16	Vishant Vijay jadhav	P	P
91	27	Shubham Dinkar Patil	P	P
92	44	Rushikesh bagane	P	P
93	20	Khatkar sayali sanjay	P	P
94	83	TORASKAR SOURABH DILIP	P	P
95	105	Melkeri Laxmi Shankarappa	P	AB
96	09	Anurag Hemant Disale	P	P
97	115	Shelar Gurunath Dilip	P	P

AB
Dr. A.B. Salunkhe

Bridge Course Attendance 2020-21
Department of Electronics

Sr.No.	Roll no.	Last Name	First Name	Middle Name	15/12/2020	16/12/2021
1	85	ADURE	REENA	DAGADU	P	P
2	86	ADURE	MEENA	DAGADU	P	P
3	87	ALAVEKAR	SUJATA	KRUSHNAT	P	A
4	88	ALAVEKAR	ANAGHA	MOHAN	P	P
5	89	BHAVAD	ROHAN	JAYAVANT	P	P
6	90	BOGAR	SHIVANI	JAYSING	P	A
7	91	CHAVAN	ABHISHEK	RAJESH	P	P
8	92	CHOUGALE	RAJNISH	NAMDEV	P	P
9	93	CHOUGULE	SAKSHI	POPAT	P	P
10	94	CHOUGULE	UJWALA	MARUTI	P	A
11	95	GOTE	BHAKTI	DIPAK	P	P
12	96	GURAV	SHAILESH	PRAKASH	P	P
13	97	KADAM	RAMANAND	RAJU	P	A
14	98	KALE	SUJAL	BHIKKHU	P	P
15	99	KAMBLE	JEEVAN	KUMAR	P	P
16	100	KOKATE	SHRUTI	SACHIN	A	P
17	101	KULAL	LINGESHWAR	YASHWANT	P	P
18	102	LAD	MITALI	DHANANJAY	P	P
19	103	LOHAR	YASH	RAJARAM	A	P
20	104	LOURA	MOHIT	SATPAL	P	P
21	105	MELKERI	LAXMI	SHANKARAPPA	A	A
22	106	PATADE	PRUTHVIRAJ	JAYWANT	P	P
23	107	PATIL	SHRADDHA	PRAKASH	P	P
24	108	PATIL	ANISH	ANAND	P	P
25	109	PATIL	YOGITA	NILKANTHA	A	P
26	110	PATIL	SAYALI	SURYAKANT	P	P
27	111	PATIL	AMRUTA	ANIL	P	P
28	112	PATIL	TUSHAR	ANANDA	P	P
29	113	POWAR	SUKESH	SANJAY	P	P
30	114	SHANBHAG	SANKET	VISHWANATH	P	P
31	115	SHELAR	GURUNATH	DILIP	P	A
32	116	SHINDE	VISHWAL	ANIL	P	P
33	117	SHINGE	ANANT	JAYWANT	A	P
34	118	TADE	SHWETA	SHIVAJI	P	P
35	119	TIPPE	PANKAJ	BALASAHEB	P	P
36	120	WAHILE	UJWAL	SHANKAR	P	A

(Signature)
Head
Department of Electronics
Rajaram College, Kolhapur

Final Exam

Sericulture course

All questions are compulsory

* Required

1. Email *

.....

2. Name of student *

.....

Multiple choice questions

Sericulture course examination

3. Classification of Bombyx mori based on..... *

Check all that apply.

- Distribution
- Moulting
- Voltinism
- Cocoon colour
- Life cycle

4. Tetra moulters moult..... *

Mark only one oval.

- Four times
- Two times
- Three times
- Five times

9. *Antheraea assama* is..... *

Mark only one oval.

- Mulberry silk
- Muga silk
- Eri silk
- Tasar silk

10. *Bombyx mori* is member of Family..... *

Mark only one oval.

- Bombycidae
- Saturnidae
- Salticidae
- Cerambicidae

11. Rearing of silkworms required..... *

Check all that apply.

- Rearing house
- Rearing room
- Ant wells
- Bee hive

12. Why Sericulture..... *

Check all that apply.

- High employment potential
- Low gestation, high returns
- Women friendly occupation
- Ideal programme of weaker section of society

17. India is 3rd largest producer of silk in the world. *

Mark only one oval.

True

False

18. Each female silkworm can lay about..... eggs. *

Mark only one oval.

100-150

25-50

350-400

1200-1500

19. The Native of Sericulture is *

Mark only one oval.

America

India

China

Japan

20. Predators of silkworm..... *

Check all that apply.

Ants

Rats

Squirrels

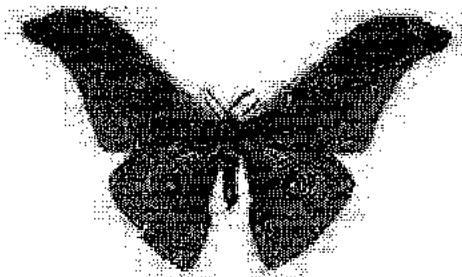
Lizards

25. Silkworm *Antheraea asma* produces which type of Silk..... *

Mark only one oval.

- Temperate tasar silk
- Muga silk
- Eri silk
- Mulberry silk

26. The given image is of _____ silkmoth *



Mark only one oval.

- Muga
- Eri
- Tasar
- None of the above

Rajaram College, Kolhapur
Department of Zoology
B. Sc. III- Sericulture Certificate Course
Marksheet- 2020-21

Sr. No.	Name of student	Score (50)
1	Aishwarya Bharat Dhembre	40
2	Akshata prakash patil	34
3	Anagha Deepak Bhakare	32
4	Dalavi Akash Ajinath	36
5	Dikshanti Shamsundar Buchede	36
6	Hajare Nandini vitthal	30
7	Komal Ajit Kamble	42
8	Komal Jagannath Kamble	38
9	Komal Tatyasaheb chougule	34
10	Namrata vishwas jadhav	30
11	Nupur Nitin joshi	38
12	Pawar shrinivas Ganpati	38
13	Pooja Nanasa Sargar	30
14	Prajakta vishnu dhanawade	34
15	Priyanka Dhondiba Mandekar	44
16	Rajnandini Shivaji Tell	28
17	Rohini Ashok Mali	44
18	Rohit Raghunath Topkar	42
19	Shreyash Kurade	42
20	Siddhi Shahaji Awalekar	34
21	Sonal Hanmant Mande	36
22	Tamanna Ramjan Shaikh	44
23	Tanuja balasaheb agale	30
24	Vijaymala Jayavant patil	34



Head of the Zoology Department
Rajaram College, Kolhapur



GOVERNMENT OF MAHARASHTRA
ESTD :1880

RAJARAM COLLEGE, KOLHAPUR
VIDYANAGAR, SAGARMAL, KOLHAPUR-416004

E-mail: rajaramcollege@gmail.com

PHONE :0231-2537840 (OFFICE)

FAX : 0231-2531989

No/RCK/EST/

Date :-

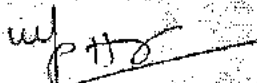
To,
The Head
Department of Physics,
Rajaram College, Kolhapur

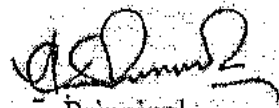
Sub. : Approval for Value added Program on Experimental Techniques in Research in the academic year 2020-21.

Course Code No. 2020 Phy 01

Dear Sir/ Madam,

This is with reference to your suggestion and the decision taken in the IQAC cell meeting. You have been advised to run the value added program as mentioned in the above subject. The course must be conducted with a separate timetable. The report of the course completion with all the requisite documents is required to be submitted to IQAC cell at the end of the second semester of this academic year.


Co-ordinator
IQAC cell


Principal
Rajaram College, Kolhapur

Value added Programme

Course code : 2020 Phy 01

Title of the course : **Experimental techniques in Research**

Department at which course to be conducted: **Physics**

Course Co-ordinator : **Dr. A. U. Patil**

Duration: (Lectures 15 hr + practical 15 hr) **30 hours**

Eligibility: **The students who have completed B.Sc. I/ II with subject physics and chemistry**

List of Experts: Teaching Faculties: **Dr. K.K. Patankar, Dr. L. D. Jadhav, Dr. A.U. Patil, Dr. A. B. Salunkhe, Dr. J.S. Lad, Dr. O.B. Pawar**

Course content:

30 lectures

Unit 1 : Introduction to Research methodology

Meaning of research, Objectives of research, Significance of research, types of research and Literature survey

Unit 2: Synthesis methods ; Chemical method : Electrodeposition: - Faradays laws, mechanisms and deposition parameter,

Biological Method:

Physical method: solid state method

Unit 3 : Characterization Technique: X Ray Diffraction : An overview of X-ray production, Braggs law and theory of X-ray diffraction, role of XRD technique in material science, Analysis of powder XRD patterns for qualitative phase analysis, Quantitative phase analysis(relative intensity phase ratio method), indexing XRD pattern of Simple cubic system.

Unit 4: Optical Properties: UV- V-IR, spectroscopy: principle and working, instrumental demonstration of UV and IR spectroscopies, data collection and analysis

Reference books:

1. **Research Methodology – Methods and Techniques, C. R. Kothari, Wiley Easter Ltd, New Delhi**
2. **Elements of X- ray diffraction By B. D. Cullity, (1956), Addison-Wesley Publishing company Inc., USA**
3. **X ray theory and experiments by Compton and Allison**
4. **Characterization techniques by Chatwal Anand**

Timetable (2020-2021)

Time	Monday	Tue	Wed	Thur	Fri	Sat
9.30 - 10.30	ABS	KKP	AUP	JSL	LDJ	
2.00 to 5.00pm						ABS/KKP/AUP/JSL/LDJ

Dr. L. D. Jadhav (LDJ)

Dr. K. K. Patankar (KKP)

Dr. A. U. Patil (AUP)

Dr. J.S. Lad (JSL)

Dr. A. B. Salunkhe (ABS)

Value Added Course

Department of Physics, Rajaram College, Kolhapur

Name of the student

Roll No. *

email address

1. Research is a-----

- Searching again and again
- Finding solution to any problem
- Working in a scientific way to search the truth of any problem
- None of these

2. Basic research is also known as-----

- Action research
- Fundamental research
- Applied research
- Descriptive research

3. What is the purpose of doing research

- To identify problem
- To find the solution
- both above
- None of these

4. Newton gave three basic laws of motion. This research is categorized as -----

- Fundamental research
- Applied research
- Sample survey
- Descriptive research

5. Research is related with----

- Discovery of new idea
- Solution of a problem
- Investigation of problem
- All above

6. Which of the following does not correspond to characteristics of research? *

- Research is not passive.
- Research is systematic.
- Research is not a problem-oriented
- Research is not a process

7. Which of the following options are the main tasks of research in modern society?

- To learn new things
- To keep pace with the advancement in knowledge.

To systematically examine and critically analyse the investigations/sources with the objective.

All of the above

8. First stage of research process is-----

Identification of research problem

Review of literature

Research design

Analysis of data

9. Last stage of research process is-----

Report writing

Review of literature

Research design

Analysis of data

10. X-ray diffraction is based on-----

Bragg's equation

Vander waals equation

Boltzman equation

None of these

11. The plot drawn in XRD is---

Intensity vs angle

Angle vs intensity

Inter atomic distance vs angle

None of these

12. The detector used in powder diffractometer is ---

Photographic film

PMT

Goniometer

Scintillation counter

13. The relationship between minimum wavelength of X-ray radiation generated from a target metal and applied voltage is given by----

Bragg's equation

Vander waals equation

Boltzman equation

Moseley equation

14. X rays are---

Magnetic radiation

Electric radiation

Electromagnetic radiation

Chemical radiation

15. X-rays of 1Å to 3Å are in use, which has more penetration?

To systematically examine and critically analyse the investigations/sources with the objective.

All of the above

8. First stage of research process is-----

Identification of research problem

Review of literature

Research design

Analysis of data

9. Last stage of research process is-----

Report writing

Review of literature

Research design

Analysis of data

10. X-ray diffraction is based on-----

Bragg's equation

Vander waals equation

Boltzman equation

None of these

11. The plot drawn in XRD is---

Intensity vs angle

Angle vs intensity

Inter atomic distance vs angle

None of these

12. The detector used in powder diffractometer is ---

Photographic film

PMT

Goniometer

Scintillation counter

13. The relationship between minimum wavelength of X-ray radiation generated from a target metal and applied voltage is given by---

Bragg's equation

Vander waals equation

Boltzman equation

Moseley equation

14. X rays are---

Magnetic radiation

Electric radiation

Electromagnetic radiation

Chemical radiation

15. X-rays of 1\AA to 3\AA are in use, which has more penetration?

- a) 3Å
- b) 1Å
- c) 1.5Å
- d) 4Å

16. Energy of $K\alpha$ radiation is _____ than $K\beta$ radiation.

- a) smaller
- b) higher
- c) equal
- d) Comparable

17. Nanomaterials are the materials with at least one dimension measuring less than

- a) 1µm
- b) 10nm
- c) 100nm
- d) 1000 nm

18. The colour of the nano gold particles is _____.

- a) Yellow
- b) Orange
- c) Red
- d) Variable

19. The first talk about nano-technology was given by _____.

- a) Albert Einstein
- b) Newton
- c) Gordon E. Moore
- d) Richard Feynman

20. The melting point of particles in nano form _____.

- a) Increases
- b) Decreases
- c) remains same
- d) Increases then decreases

submit

Clear form

Never submit passwords through Google Forms.

This content is neither created nor endorsed by Google. [Report Abuse](#) - [Terms of Service](#) - [Privacy Policy](#)

Google Forms

<https://forms.gle/JrGjM6iG3C5vDXKZA>

Marksheet for Value Added Course

Roll No.	Name of the student	score
2020TS106	Sanjana Sanjay Patil	17
2020TS129	Samant Sanjay Kulkarni	17
2020TS151	SURYAWANSHI VISHWAJEET SUNIL	19
2020TS136	Deepak Ramchandra Pokale	12
2020TS28	Neeraj Suryakant Chaugule	11
2020TS135	Patil Shivraj Keshav	15
2020TS133	Prathmesh Devgonda Patil	20
2020TS127	Kirti Pramod Gaikwad	19
2020TS143	Sahej Satappa Sandugade	12
2020TS132	Rutuja Sunil Magar	14
2020TS146	Suryawanshi Abhijeet Mahadev	14
2020TS141	Shivani Tatoba Power	14
2020TS149	Wadkar Harshada Mahadev	14
2020TS150	Vishal Balasaheb Walkoli	18
2020TS148	Ahary Chetan Vibhute	19
2020TS132	Omkar Krishnat Patil	20
2020TS129	Vishwaji Khot	19
2020TS142	Shreya vikas sable	15
2020TS140	Kornal ravindra Power	11

Marksheet for Value Added Course

Roll No.	Name of the student	score
2020TS136	Sanjana Sanjay Patil	17
2020TS129	Sumant Sanjay Kulkarni	17
2020TS151	SURYAWANSHI VISHWAJEET SUNIL	19
2020TS138	Deepak Ramchandra Pokale	12
2020TS28	Neeraj Suryakant Chaugule	11
2020TS135	Patil Shivraj Keshav	15
2020TS133	Prathmesh Devgonda Patil	20
2020TS127	Kirti Pramod Gaikwad	19
2020TS143	Snehal Satappa Sandugade	12
2020TS132	Rutuja Sunil Magar	14
2020TS146	Suryawanshi Abhijeet Mahadev	14
2020TS141	Shivani Tatoba Powar	14
2020TS149	Wadkar Harshada Mahadev	14
2020TS150	Vishal Balasaheb Walkoli	18
2020TS148	Atharv Chetan Vibhute.	19
2020TS132	Omkar Krishnat Patil	20
2020TS128	Vishwajit Khot	19
2020TS142	Shreya vikas sable	15
2020TS140	Komal ravindra Powar	11

GIST OF COURSE –

- ✓ India is largest food producing country after China. Food is one of the basic need of life in developing country. Milk is considered as wholesome food.
- ✓ Hence getting a nutritious quality food is fundamental right of consumers
- ✓ By law it is mandatory for the industries to manufacture, distribute and sell food and food product which are approved by quality control department that prevent health hazard

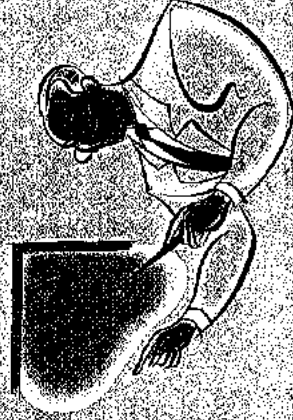
Out come of course-

- Skills of microbiological analysis of food product will developed among participating
- The student will be made competent to work in Q.C department of food industries
- Course will help to increase placement opportunities in food industries

Aims – The course is aimed to develop skills in microbiology analysis used in the quality control of food and food product.

Objective –

1. To train student in food sampling methods
2. To train students in preparation of special media
3. To train students in various technique used for enrichment, isolation and identification of pathogen



**RAJARAM COLLEGE,
KOLHAPUR**

Department Of Microbiology

Value Added Certificate Course

For B.Sc. III Microbiology And
Industrial Microbiology
Students.

QUALITY CONTROL IN FOOD INDUSTRY

❖ **Course Duration –: 45**
Lectures

❖ **Course Code –: RCK -MIM**

❖ **Theory -25 Lecture**

❖ **Hands On Training -20**
Lecture.

RAJARAM COLLEGE, KOLHAPUR

DEPARTMENT OF MICROBIOLOGY

Value Added certificate Course for B.Sc. III Microbiology students

Course duration: 45 days, course code: RCK-MIM

Theory – 25 lectures, Hands on training -20 lectures
Total- 45 lectures of 60 min. each

Quality Control in Food Industry

1) Gist of the course:

India is the largest food producing country after China. Food is one of the basic need of life. In developing country such as ours, Milk is considered as a wholesome food. Hence, getting a nutritious quality food is the fundamental right of the consumer. By law, it is mandatory for the industries to manufacture, distribute and sell food and food products which are approved by quality control department that prevent health hazards. This value-added course will provide the basic and applied knowledge regarding the general concepts of the quality control (QC) of food products to the participating students.

Gokul Dairy, Hindustan Bakery products, Ganesh Bakery Nandani products and Chandrakant pickle products are few of the very well known dairy and food industries in Kolhapur area. The course strives to cultivate ideas of QC in the undergraduate students. Being the oldest Microbiology Department in Kolhapur, the Department has taken upon itself to spread the awareness regarding the commercial aspects of QC. We at the Department of Microbiology are committed to provide translational knowledge to our students. This particular course will definitely add value to the knowledge pool of participating students.

2) Aims And Objectives:

Aims:The course is aimed to develop skills in microbiological analysis used in the quality control of food and food products.

Objectives:

- 1) To train students in food sampling methods.
- 2) To train students in preparation of special media.
- 3) To train students in various techniques used for enrichment, isolation and identification of pathogens.

3) Structure of course:

The course contains theory and practical components. The theory component will help in inculcating concepts of quality control, total quality management systems and microbiological methods used for isolation of pathogens.

Practical component will help in improving practical skills used in quality control departments.

4) Expected outcome:

- 1) Skills of microbiological analysis of food products will be developed among participating students.
- 2) The students will be made competent to work in quality control department of food industries.
- 3) The course will help in increasing placement opportunities in local as well as regional food industries.
- 4) The students will provide consultancy to food industries which could also lead to self employment

5) Evaluation pattern:

Theory exam of 50 marks, for two hours duration will be conducted at the end of the course

Nature of the question paper

- | | |
|---|-------------|
| 1) Objective type questions | ---10 marks |
| 2) Essay type and short note type questions | ---20 marks |
| 3) Practical | ---20 marks |

Quality Control in Food Industry

STRUCTURE OF THE COURSE

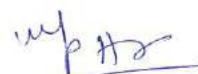
Duration - 45 days
Theory - 25 lectures
Practical - 20 practicals
Total -45 lectures of 60 mins each.

SYLLABUS - Theory component

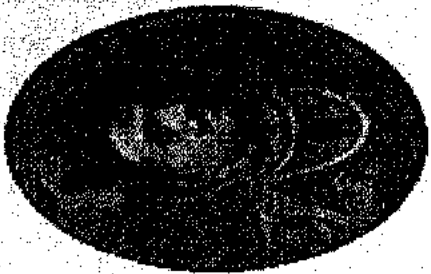
	25 lectures
1. Concept of Quality Control (QC) and Quality Assurance (QA)	5
2. Need for Quality Control (Main aspects/ Reasons for QC)	
3. Primary objectives of Quality Control	
4. Principles of Quality Control	
5. Benefits of Quality Control	
6. Specific responsibilities of Quality Control department	
7. Total quality management system (TQMS) in food industry	10
a. Raw material acceptance	
b. Process control	
c. Packaging	
d. Finished product storage	
e. Transport and distribution	
8. Microbiological methods for Quality Control	10
a. Determination of microbial load by standard plate count (SPC) method	
b. Study of food borne pathogens	
i) Collection of Sample	
ii) Enrichment of pathogens	
iii) Isolation of pathogens	
iv) Identification of pathogens	
v) Rapid detection of pathogens	
9. c. concept of environmental monitoring in food industry.	

SYLLABUS- practical component

	20 lectures
1. Collection of sample	
2. Enumeration of Microorganisms by standard plate count from sample	5
3. Detection of pathogens	
a. Enrichment	5
b. Isolation	5
c. Identification	5


Head,

Department of Microbiology

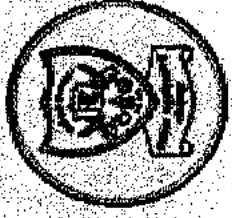


Government of Maharashtra's

Rajaram College, Kolhapur

Vidyanagar, Kolhapur 416004

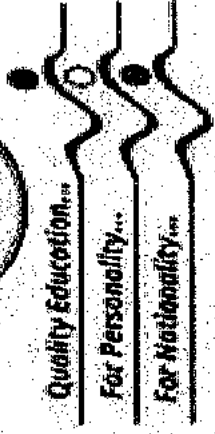
Affiliated to Shivaji University



Quality Education...

For Personality...

For Nationality...



Department of Microbiology & Industrial Microbiology

Certificate of Completion

This is to certify that *Mr./ Miss.* _____

has Successfully completed *Value Added Certificate Course in "Quality Control in Food Industry"*, organized by Department of Microbiology & Industrial Microbiology, Rajaram College Kolhapur, from _____ to _____.

Dr. Y. C Attar
H.O.D

Microbiology & Industrial Microbiology

Dr. A. S. Khemnar
Principal

RAJARAM COLLEGE
DEPARTMENT OF GENERAL MICROBIOLOGY
Add On Value Added Course 2020-2021

Sr No	Roll No	Name of the student	Marks Out of 50
1	2020TS216	ANIWAR BASAMMA BHIMRAO	36
2	2020TS217	CHOUGALE TUSHAR TUKARAM	38
3	2020TS218	DARYANI BHAVANA SHRICHAND	Ab
4	2020TS219	DESAI AISHWARYA ATMARAM	40
5	2020TS220	DHANGAR SATYAM NAGENDRA	42
6	2020TS221	FARAKATE SAKSHI DIGAMBAR	38
7	2020TS222	JADHAV SHARVARI SUNIL	46
8	2020TS223	KAMBLE ANIL CHANDRAKANT	46
9	2020TS224	KAMBLE PAYAL SURESH	40
10	2020TS225	KAMBLE RATNDEEP UTTAM	38
11	2020TS226	KHANDELWAL SUNNY TULSIRAM	48
12	2020TS227	KHARAT ROHINI MALIK	Ab
13	2020TS228	KHATKAR RUTUJA ASHOK	36
14	2020TS229	KUMBHAR ANIKET BALASO	44
15	2020TS230	LENDAVE SHITAL TANAJI	Ab
16	2020TS231	MAHARAJ MITALI RAJESH	46
17	2020TS232	MORE NIRMITI GIRISH	46
18	2020TS233	MORE SHWETA SANTOSH	44
19	2020TS234	NALAWADE ROHINI BALASO	48
20	2020TS235	NARVEKAR VIREN VINAYAK	46
21	2020TS236	NIGAVEKAR KUMBHAR ANJALI PRAKASH	42
22	2020TS237	PATIL SUSHAMA TANAJI	Ab
23	2020TS238	PATIL SHWETA SHASHIKANT	36
24	2020TS239	PATIL GAUTAMI KERABA	38
25	2020TS240	PATIL MRUNAL KRUSHNAT	36
26	2020TS242	PEDNEKAR SAMRUDDHI PRASAD	34
27	2020TS243	POKALE MEGHA PRAKASH	Ab
28	2020TS244	RAJPUT AMISHA SAVAN	Ab
29	2020TS245	SAINI RASHMI RAMKUMAR	40
30	2020TS246	SHETE AISHWARYA KIRAN	36
31	2020TS247	SHINDE YUKTA YUVRAJ	40
32	2020TS248	SHINDE SAYALI VIJAY	38
33	2020TS249	ZANJALE ANIKET ANIL	Ab
34	2020TS018	JADHAV CHAITRESH MADHAV	38
35	2020TS299	SANADI MUSTAKIM SADIQ	Ab
36	2020TS277	SALUNKHE HARSHWARDHAN RAJENDRA	40
37	2020TS300	SHETE SIMRAM SANJAY	Ab

up to

RAJARAM COLLEGE
DEPARTMENT OF INDUSTRIAL MICROBIOLOGY
Add On Value Added Course B.Sc. III SEM V 2020-2021

Sr No	Roll No	Name of the student	Marks out of 50
1	2020TS250	AMBALE VAIBHAVI SAGAR	36
2	2020TS251	ASWALE MRUNALINI VITTHAL	Ab
3	2020TS252	BHAT SWARAJ BAJIRAO	34
4	2020TS253	BUJARE RANJIT KRUSHNAT	36
5	2020TS254	CHAVAN KIRAN VINOD	46
6	2020TS255	CHOPADE SANGHAMITRA UTTAM	46
7	2020TS256	CHOUGALE NISHANT SHIVAJI	Ab
8	2020TS257	GURAV DIPASHRI SUNIL	40
9	2020TS258	JAKHALE SNEHAL TUKARAM	44
10	2020TS259	KAMBLE POOJA BALWANT	42
11	2020TS260	KAMBLE MRUNALI BABURAV	40
12	2020TS261	KAVADE RADHIKA RAHUL	46
13	2020TS262	KULKARNI SHREYA SHEKHAR	44
14	2020TS263	KUMBHAR RUTUJA RAJENDRA	Ab
15	2020TS264	KUMBHAR VIRESH VIJAY	38
16	2020TS265	MORE SANGRAM SURESH	36
17	2020TS266	MORE NAMRATA YUVARAJ	44
18	2020TS267	PATIL HARSHADA DILIP	38
19	2020TS268	PATIL POOJA KISAN	36
20	2020TS269	PATIL SANGRAM SURESH	Ab
21	2020TS270	PATIL RUTVIK SHIVAJI	Ab
22	2020TS271	PATIL SHARDA BHARAT	36
23	2020TS272	PATIL SANKET SUNIL	38
24	2020TS273	SHINDE SANCHITA SACHIN	40
25	2020TS274	SHINDE DNYANDEVI ARUN	42
26	2020TS275	TERANIKAR YUKTA KIRAN	48

my H₂

Sr No	Roll No	Name of the student	04-Jan	5	6	7	8	9	11	12	13	15	16	18	19	21	22	23	25	27	28	29	30
1	2020TS250	AMBALE VAIBHAVI SAGAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	2020TS251	ASWALE MRUNALINI VITTHAL	P	AB	AB	P	P	P	P	P	AB	P	P	P	AB	P	P	AB	P	AB	P	P	AB
3	2020TS252	BHAT SWARAJ BAJIRAO	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
4	2020TS253	BUJARE RANJIT KRUSHNAT	P	P	P	P	P	P		P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	2020TS254	CHAVAN KIRAN VINOD	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	2020TS255	CHOPADE SANGHAMITRA UTTAM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	2020TS256	CHOUGALE NISHANT SHIVAJI	AB	P	P	AB	P	P	P	P	P	AB	P	P	P	P	P	AB	P	P	P	P	P
8	2020TS257	GURAV DIPASHRI SUNIL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	2020TS258	JAKHALE SNEHAL TUKARAM	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	2020TS259	KAMBLE POOJA BALWANT	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	2020TS260	KAMBLE MRUNALJI BABURAV	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	2020TS261	KAVADE RADHIKA RAHUL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	2020TS262	KULKARNI SHREYA SHEKHAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	2020TS263	KUMBHAR RUTUJA RAJENDRA	P	AB	P	P	P	P	P	P	AB	P	P	P	AB	P	P	P	AB	P	P	P	P
15	2020TS264	KUMBHAR VIRESH VIJAY	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
16	2020TS265	MORE SANGRAM SURESH	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
17	2020TS266	MORE NAMRATA YUVARAJ	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
18	2020TS267	PATIL HARSHADA DILIP	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
19	2020TS268	PATIL POOJA KISAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
20	2020TS269	PATIL SANGRAM SURESH	AB	P	P	AB	P	P	P	P	AB	P	P	P	AB	P	P	AB	P	P	P	P	AB
21	2020TS270	PATIL RUTVIK SHIVAJI	P	P	AB	P	P	P	P	P	P	P	P	AB	P	P	P	P	P	P	AB	P	P
22	2020TS271	PATIL SHARDA BHARAT	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
23	2020TS272	PATIL SANKET SUNIL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
24	2020TS273	SHINDE SANCHITA SACHIN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
25	2020TS274	SHINDE DNYANDEVI ARUN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
26	2020TS275	TERANIKAR YUKTA KIRAN	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

wp/htz

01-Feb	2	3	4	5	6	8	9	10	11	12	13	15	17	18	20	22	23	24	25
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
P	AB	P	P	AB	P	P	AB	P	AB	P	P	P	P	P	AB	P	P	P	AB
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P		P	P	P	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
AB	P	P	P	P	AB	P	P	P	AB	AB	P	P	P	P	P	AB	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

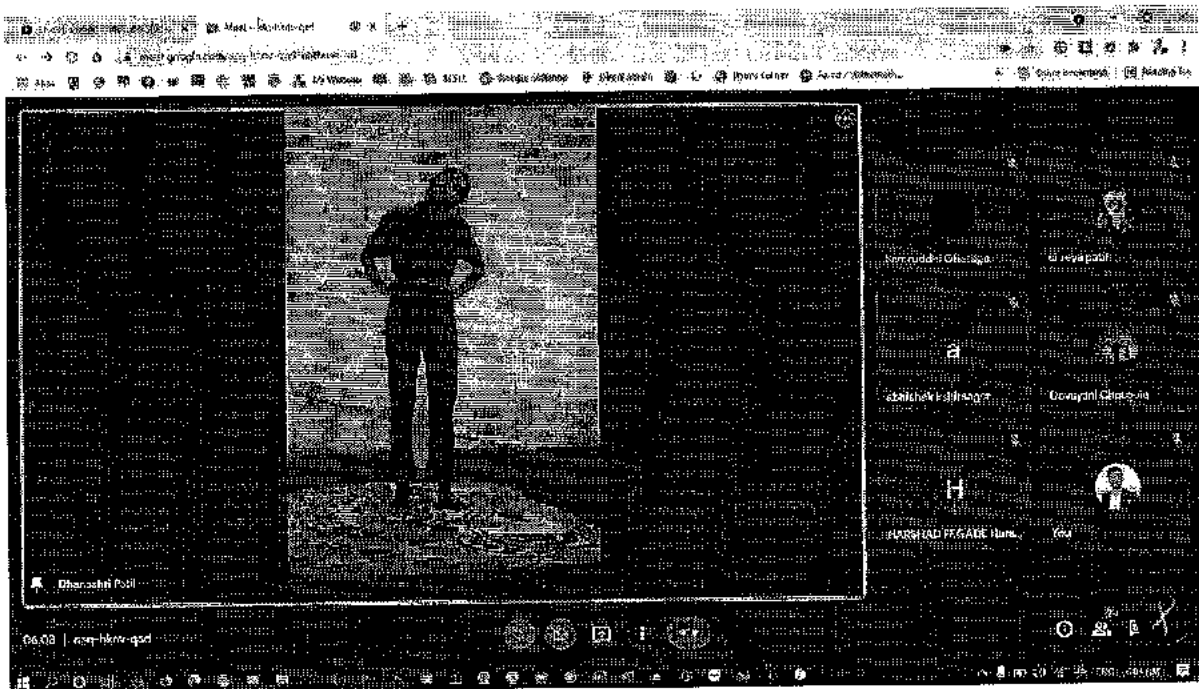
Handwritten signature

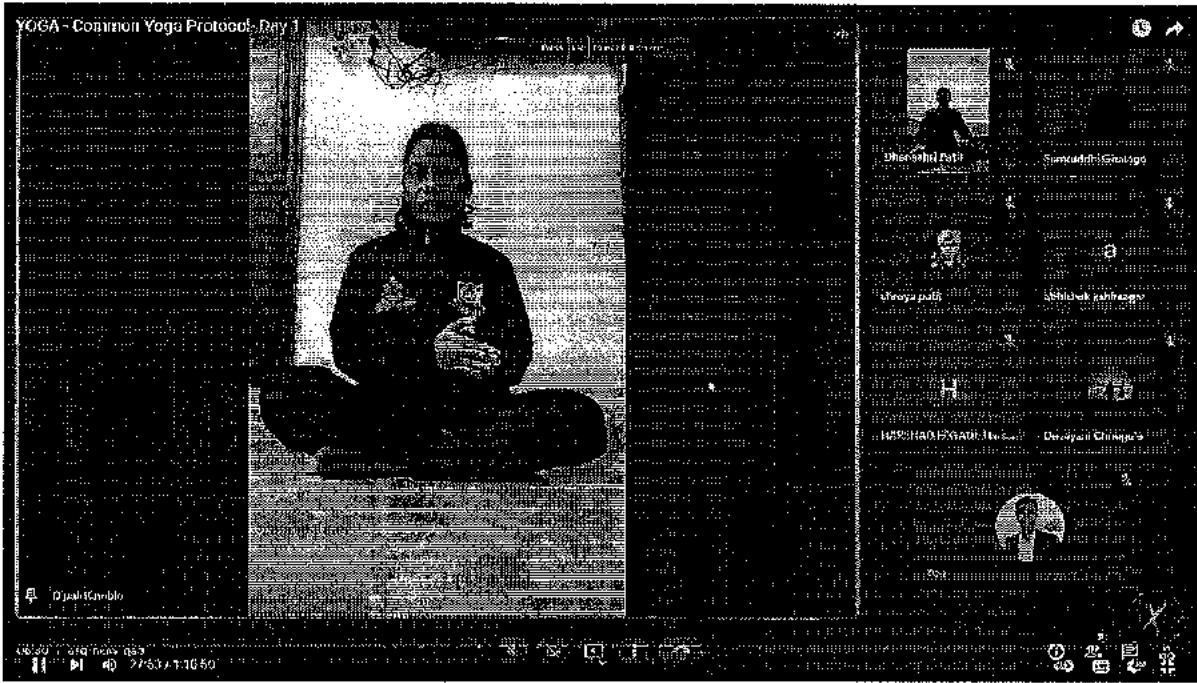
Rajaram College, Kolhapur

1 Mah Arty Bty NCC Department

On the occasion of International Yoga Day 1 Mah Arty Bty NCC Department of Rajaram College, Kolhapur conducted online Yoga Day celebration on 21st June 2020. The Yoga Mudras were shown by Dhanshri Patil and Dipali Kamble 1 Mah Arty Bty NCC cadets.

YouTube live streaming link- <https://www.youtube.com/watch?v=Jicpjzb72TA>







~~P. Prasad~~
1MAH Coy commander
1MAH ARTY BTY NCC