"Dissemination of Education for Knowledge, Science and Culture"

-Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR (AN EMPOWERED AUTONOMOUS INSTITUTION)

Department of Microbiology (UG)

Academic Year 2024-2025

Notice

Date –08/02/2025

All the students of **B.Sc.-II** are hereby informed that their **Unit Test** has been scheduled on **12/02/2025**, Wednesday. Test will be of 10 marks. Hence all students are instructed to prepare accordingly. Attendance for test is compulsory to everyone. All students should remain present for test on time.

Title of paper	Date and Time	Venue	Topic
Paper VII Medical Microbiology **Unit I**	12/02/2025 10:30-11:00 am	Room no. 415	1. Definitions 2. Types Of Infection 3. Type Of Diseases

VIVEKANAND COLLEGE KOLHAPUR * (Empowered Autonomous) * ESTD JUNE 1964

Dr. T.C. Gaupale

I/C HEAD
DEPARTMENT OF MICROBIOLOGY
VIVEKANAND COLLEGE,KOLHAPUR
(EMPOWERED AUTONOMOUS)

Vivekanand College, Kolhapur (An Empowered Autonomous Institute)

B.Sc. Part- II(Microbiology) (Sem-IV) Unit Test: MARCH-2025

Paper V Medical Microbiology

Date -: 12/02/2025 **Time-: 10:30 am – 11:00pm**

Day: Wednesday **Total Marks: 10**

Q.1] Multiple Choice Questions. **5 marks**

1. The infection transmitted from mother to fetus via placenta is termed as _____.
   a. Secondary b. Reinfection c. Congenital d. Iatrogenic
2. Immunoglobulin produced in response to antigen are called _____.
   a. Antibodies b. Toxin c. Hapten d. Vaccine
3. Ability of organism to produce diseases is called _____
   a. Virulence b. Infection c. Pathogenicity d. Poisoning
4. Infected individual that are source of infection are called as _____
   a. Carriers b. Parasites c. Fomites d. Vector
5. _____ is the number of cases of given diseases in given time per unit of population
   a. Morbidity b. Mortality c. molality d. Morality

Q.2] Define. **2 marks**

1. Hapten
2. Immunity

Q.3] Short note (Any 1) **3 marks**

1. Types of diseases

2. Infection

Vivekanand College, Kolhapur (An Empowered Autonomous Institute)

Department of Microbiology (UG)

Academic Year 2024-2025

Unit test B.Sc. II Sem IV

Presenty

Date – 12/08/2025

Time – 10.30- 11.30 a.m

Sr. No.	Name of Student	Roll. No.	Sign	Marks
1	Mane Sakshi Manohar	7898		06
2	Musute Bhagyashree D.	7899		07
3	Rathi Sanjana Pavankumar	7900	AL	07
4	Akkole Poonam Anil	7901		06
5	Amane Aditya Avdhut	7902	AS	00
6	Bakale Poonam Raju	7903	AS	—
7	Bamane Durgesh Baban	7904		05
8	Dave Dhruv Govind	7905		05
9	Dongare Samruddhi Dattatry	7906		06
10	Gole Samruddhi Dattatray	7907	AS	—
11	Gulabani Bhakti Amar	7908	AS	—
12	Gurav Gouri Vidyasagar	7909		08
13	Jadhav Harshali Uttam	7910		07
14	Jadhav Prachi Ramesh	7911		06
15	Jambhale Rajvardhan	7912	AS	—
16	Khatib Juyera Ilai	7913		06
17	Kadam kalyani Prakash	7914		06
18	Kadatare Manthan Vinay	7915	AS	
19	Kamble Sanika Nagesh	7916		06
20	Karalkar Hardik Arun	7917		05
21	Kumbhar Rutuja Suresh	7918	AS	05
22	Kumbhar Sanika Arjun	7919		07
23	Mahadik Rajveer Suraj	7920		06
24	Mane Sanjana Dattatray	7921	AS	09
25	Marathe Aradhana Satish	7922		07
26	Matre Pooja Shankar	7923	AS	—
27	Mullani Sophiya wasimraja	7924		04
28	Nirankari Taruna Vishnudas	7925		8
29	Parit Amruta Eknath	7926	AS	10
30	Patil Achal Bhaskar	7927		07

31	Patil Janhavi Ashok	7928	Patil	06
32	Patil janhavi Nitin	7929	AB	00
33	Patil Mrujala Maloji	7930		07
34	Patil Priti Pramod	7931		08
35	Patil Sanjyoti Ramchandra	7932		04
36	Patil Swarup Ramchandra	7933	AB	00
37	Patil Vidula Manik	7934		07
38	Pawar Samiksha Santosh	7935		07
39	Pidwani Disha Jairamdas	7936	Disha	07
40	Pishte Sanika vijay	7937	AB	06
41	Rode Kaveri Ravindra	7938		05
42	Shahapure Anirudha Uijaykumar	7939	A.V.Shahapur	04
43	Shaikh Jiya Ajij	7940	AB	06
44	Shaikh Sadiya Shakil	7941	AB	00
45	Shetti Omkar Vidyasagar	7942		02
46	Shinde Janhvi Nitin	7943		07
47	Suryavanshi Siddhi Satish	7944		07
48	Sutar Dhanashree Rajendra	7945	AB	—
49	Swami Sanket Kalayya	7946		04
50	Teli Prajakta Namdev	7947	P.N. Teli	05
51	Ugave Sanika Kashinath	7948	S.K.Ugave	06
52	Chougale sakshi Rajesh	7970		06
53	Tanishka Rahul Divase	7966		06

Nadkarni

Name of Teacher -: Ms. M. M. Nadkarni

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

B. Sc. II UNIT TEST 2024-2025 – 12/02/2025

VIVEKANAND COLLEGE KOLHAPUR
ESTD JUNE 1964
(Empowered Autonomous)

Vivekanand College, Kolhapur (An Empowered Autonomous Institute)

B.Sc. Part- III (Microbiology) (Sem-V) Unit Test: OCT-2024

Paper XII Industrial Microbiology

Date -: 03/09/2024 **Time-: 12:00 am – 1:00pm**

Day: Monday **Total Marks: 20**

Q.1] Attempt any 1 **8 marks**

1. Define microbiological assay and discuss in detail various method of Microbiological assay
2. Define strain improvement. Discuss in detail various methods of strain improvement.
3. Discuss in detail food as substrate for microorganism.
4. Discuss in detail Staphylococcal food poisoning.

Q.2] Short note (Any 3) **12 marks**

1. Aflatoxin
2. Scale up
3. Lyophilization
4. Oxidation reduction
5. pH of food
6. Salmonellosis

"Dissemination of Education for Knowledge, Science and Culture"
Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur (Empowered Autonomous)

Department of Microbiology (UG)

Academic Year 2024-25

Test Presenty

PAPER 12 UNIT 1

SR.NO	NAME	ROLL NO.	SIGN	MARK
1	Bhosle Vedika Sudhir	8337		10
2	Chavan Sanika Pradeep	8388		09
3	Chougule Sanika Vishnu	8389		11
4	Dinde Ankita Rangrao	8390		09
5	Gaikwad Divya Sanjay	8391	Ab	—
6	Gaikwad Nikita Nandkumar	8392		08
7	Gurav Mansi Sunil	8393	Ab	—
8	Hajare Aishwarya Ganesh	8394		09
9	Hardikar Yogi Ashutosh	8395	Ab	—
10	Jadhav Karan Dipak	8396		08
11	Jadhav Vinayak Sanjay	8397	Ab	—
12	Jasud Rutuja Tanaji	8398		06
13	Jevrani Simran Anil	8399		06
14	Kachare Ishwari Pradeep	8400	—	—
15	Kamat Sanskruti Santosh	8401		07
16	Khanvilkar Anjali Hemant	8402	Ab	—
17	Kharade Sanchit Sachin	8403		12
18	Khot Vaishnavi Jitendra	8404		10
19	Korane Harshad Mahesh	8405		06
20	Kulkarni Sai Vivek	8406	Ab	—
21	Lad Anjali Vijay	8407		10
22	Ligade Smeet Sunil	8408		11
23	Majgavkar Sanika Sagar	8409		10
24	Mali Prachi Sanjay	8410	Ab	—
25	Mane Rohan Baban	8411		10
26	Mujawar Aabida Altaf	8412		12
27	Parulekar Diksha Devdatta	8413		12
28	Patil Avantika Arun	8414	Ab	—
29	Patil Kartigraj Bhagwan	8415		9
30	Patil Sammed Annaso	8416		06
31	Patil Sharwari Yuvraj	8417		08

32	Patil Suhani Sadashiv	8418		07
33	Powar Diya Kiran	8419		08
34	Prabhu Savali Shivaji	8420		08
35	Shaikh Rijwan Firoj	8421		11
36	Shelke Yogesh Balu	8422	Ab	—
37	Shewale Prithviraj Subhash	8423		09
38	Sonule Sushant Krishnat	8424		13
39	Sutar Jayshri Krishnat	8425		10
40	Todkar Nirjara Shivaji	8426		09
41	Wadkar Samrudhi Dhanaji	8427		10
42	Yadav Sushant Harishchandra	8428		10
43	Yatam Ashutosh Bhagvan	8429		05
44	Harshe Arpita Ashok		Ab	—
45	Shaikh Mushfira Balu		Ab	—

Name of Teacher -: Ms. M. M. NADKARNI

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

B. Sc. III SURPRISE TEST 2024-2025 – 03/09/2025

VIVEKANAND COLLEGE KOLHAPUR
ESTD JUNE 1964
(Empowered Autonomous)

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

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur (An Empowered Autonomous Institute)

Department of Microbiology

Academic Year 2024-2025

B. Sc. I Open Book Test

NOTICE Date: 15/01/2025

All the students of B. Sc. I (Microbiology) are hereby informed that the open book test is scheduled on the syllabus of Paper III Basic Biochemistry (2DSC03MIC21) Unit II on 23/01/2025 at 12.45 pm in classroom no.315. All the students should attend the test in time.

Dr. T. C. Gaupale

HC HEAD
DEPARTMENT OF MICROBIOLOGY
VIVEKANAND COLLEGE,KOLHAPUR
(EMPOWERED AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous)
ESTD JUNE 1964

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College Kolhapur (Empowered Autonomous)

Department of Microbiology

B. Sc. I

Open Book Test (Paper III Unit II)

Date: 23rd January, 2025

Sr. No.	Name of Student	Roll No.	Signature
	Teacher		
1	Ambale Riya Sunil	7469	Rambale
2	Ambale Siddhi Yuvraj	7470	Ambale
3	Balugade Vaishnavi Shahaji	7471	VBalugade
4	Bele Surbhi Vishal	7472	
5	Benake Madhura Shankar	7473	Ab
6	Chile Sanket Dattatray	7474	
7	Chougule Sanika Tanaji	7475	Ab
8	Dalavi Trailokya Nitin	7476	T.N.D.
9	Deshmukh Sanskruti Tanaji	7477	Deshmukh
10	Ghosarawade Arati Ramachandra	7478	
11	Gutte Tukaram Dattatrey	7479	
12	Jadhav Parth Suhas	7480	Ab
13	Jagtap Anjali Shamrao	7481	Ab
14	Jamadar Saba Mirsahab	7482	Ab
15	Jamadar Sadiya Ibrahim	7483	
16	Kamble Antara Shesherao	7484	Akamble
17	Kambale ShawariBajorao	7485	Ab
18	Khot Vaishnavi Rajaram	7486	
19	Kole Rajanandini Balasaheb	7487	Ab
20	Korane Sakshi Bhaskar	7488	Skorane
20	Kulkarni Pratiksha Prashant	7489	Pkulkarni
21	Kumbhar Priyanka Dipak	7490	
22	Kumbhar Samiksha Sanjay	7491	Ab
23	Mali Tanuja Ajit	7492	Amali

VIVEKANAND KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

57	Singh Badal Kamalendra	7525	Badal
58	Sontakke Vaishnavi Vinayak	7526	
59	Thanekar Sanika Joytiram	7527	S.J. Thanekar.
60	Vasagade Shreya Jinendra	7528	S.J. Vasagade

Gaupals

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

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

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur (An Empowered Autonomous Institute)

Department of Microbiology

B. Sc. I Semester II

Paper III Basic Biochemistry (2DSC03MIC21)

Date: 23/01/2025

Time: 12.45 pm to 1.15 pm

Marks: 10

Q.1 What are lipids? Discuss in detail complex lipids with suitable examples. **[10]**

Vivekanand College, Kolhapur (An Empowered Autonomous Institute)

Department of Microbiology

B. Sc. I Semester II

Paper III Basic Biochemistry (2DSC03MIC21)

Open Book Test

RESULT

Date: 23/01/2025

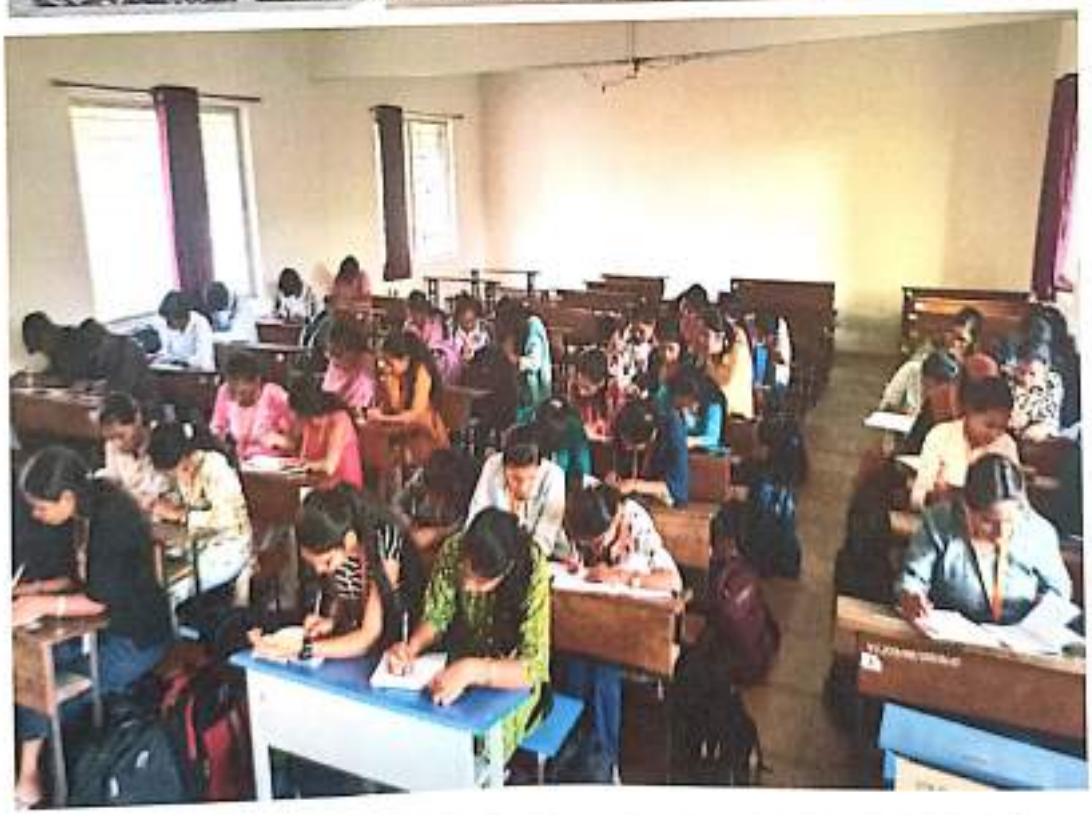
Sr. No.	Name of Student	Roll No.	Marks (Out of 10)
1	Ambale Riya Sunil	7469	10
2	Ambale Siddhi Yuvraj	7470	10
3	Balugade Vaishnavi Shahaji	7471	08
4	Bele Surbhi Vishal	7472	08
5	Chile Sanket Dattatray	7474	07
6	Chougule Sanika Tanaji	7475	08
7	Dalavi Trailokya Nitin	7476	10
8	Deshmukh Sanskruti Tanaji	7477	08
9	Ghosarawade Arati Ramachandra	7478	09
10	Gutte Tukaram Dattatrey	7479	10
11	Jadhav Parth Suhas	7480	Absent
12	Jagtap Anjali Shamrao	7481	Absent
13	Jamadar Saba Mirsahab	7482	Absent
14	Jamadar Sadiya Ibrahim	7483	10
15	Kamble Antara Shesherao	7484	09
16	Kambale ShawariBajorao	7485	Absent
17	Khot Vaishnavi Rajaram	7486	09
18	Kole Rajanandini Balasaheb	7487	Absent
19	Korane Sakshi Bhaskar	7488	09
20	Kulkarni Pratiksha Prashant	7489	08
20	Kumbhar Priyanka Dipak	7490	09
21	Kumbhar Samiksha Sanjay	7491	Absent
22	Mali Tanuja Ajit	7492	09
23	Mole Nikita Tanaji	7493	08
24	More Siya Kailas	7494	09
25	Nadaf Asiya Dastgir	7495	Absent

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

26	Nadaf Pinjari Tasneem Bhola	7496	10
27	Parit Haripriya Amar	7498	10
28	Parit Priti Anil	7499	09
29	Patil Anuradha Rajaram	7500	Absent
30	Patil Jyoti Suresh	7501	09
31	Patil Raju Tanaji	7502	Absent
32	Patil Riya Uttam	7503	09
33	Patil Rutuja Ravsaheb	7504	Absent
34	Patil Saloni Gajkumar	7505	10
35	Patil Sanjivani Vishnu	7506	Absent
36	Patil Shreya Sunil	7507	09
37	Patil Unmesh Yashwant	7509	07
38	Patil Vaishnavi Dipak	7510	Absent
40	Pendhari Simran Mahamad	7511	10
41	Pol Gunjan Vijay	7512	09
42	Raul Gauri Pramod	7513	05
43	Sabale Aaditi Akaram	7514	07
44	Shinde Samruddhi Vijay	7515	10
45	Sutar Shweta Prabhakar	7516	09
46	Vhanmane Pranali Mhalappa	7518	10
47	Bhoje Adesh Chandrakant	7519	10
48	Dalvi Janhvi Ananda	7520	Absent
49	Gurav Varsha Tanaji	7521	07
50	Khot Nikita Tanaji	7522	10
51	Koli Divya Dilip	7523	09
52	Salunke Vaishnavi Ranjeet	7524	10
53	Singh Badal Kamalendra	7525	Absent
54	Thanekar Sanika Joytiram	7527	07
55	Vasagade Shreya Jinendra	7528	08

Dr. T. C. Gaupale

HC HEAD
DEPARTMENT OF MICROBIOLOGY
VIVEKANAND COLLEGE,KOLHAPUR
(EMPOWERED AUTONOMOUS)



B. Sc. I Open Book test on 23 January 2025

VIVEKANAND COLLEGE KOLHAPUR
ESTD JUNE 1964
(Empowered Autonomous)

B.Sc-I

Roll No.-7498

Open Book Test

10/10

23 01 2025 (DD MM YYYY)

Q.) 1) What are lipids ? Describe in detail Complex lipids.

→

lipids are collective term for molecules derived from living organisms which are least soluble in water and readily soluble in nonpolar environment are called as lipids.

⊙ Complex lipids.

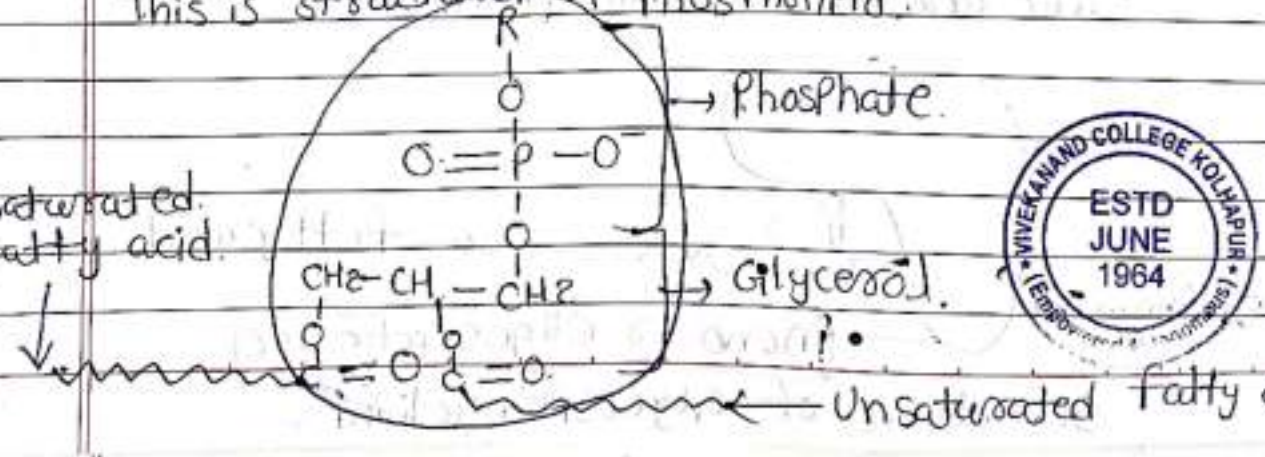
- These are ester of fatty acids with alcohal, but in addition they contain grouplike phosphate or carbohydrate. Two-OH group in alcohal are joined to fatty acids by ester bond remaining OH group linked with phosphate or carbohydrate. ex. Phospholipids and glycolipids.

1) Phospholipids

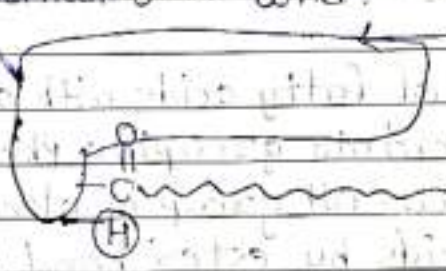
- lipids contains phosphate, two types of alcohal found in phospholipids → Glyceral or Sphingosine. Phospholipid may be glyceral based or Sphingosine based.

i) Glycerophospholipid:

- Unlike triglycerides → three fatty acids, Phospholip have two fatty acids attached at C-1 and C-2 of glycerol. fatty acids forms hydrophobic tail portion. Phosphate group attach at C-3 Phospholipid contain C_{16} or C_{18} saturated fatty acid at -1 and C_{18} to C_{20} unsaturated fatty acid at C-2. This is structure of Phospholipid.

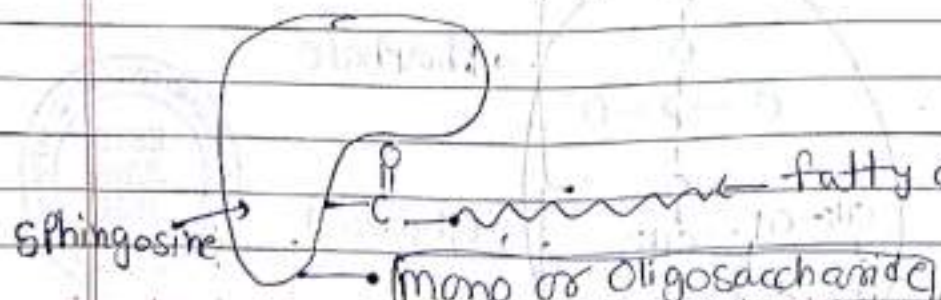


ii) Sphingolipids →
- Contain long chain amino-alcohol - Sphingosine
- Consist of single fatty acid chain attached to C-2, through -NH2 by amide linkage. Polar head group attached to C-1 by glycosidic bond or Phosphodiester bond



2) Glycolipids → lipids have carbohydrates - mono- or oligosaccharide as polar group. Polar group joined by direct glycosidic bond. Lipids may be sphingosine based → Glycosphingolipid or glycerol based → Galactolipid and Sulpholipids. fatty acids chains joined at C-1 and C-2 of glycerol and at C-2 Sphingosine which serve as hydrophobic tail

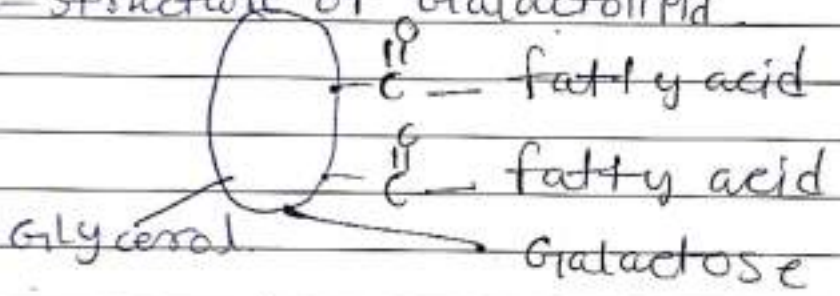
i) Glycosphingolipids
- lipids contain 1 or more sugar at C1 Position
- found in outer surface of cell membrane.
- These are 3 types:
1 Cerebrosides: → single sugar as polar group
Globosides → Two or more sugar as polar group
Ganglioside → contain oligosaccharide with 1 or more salic acid at terminal position



Structure of Glycosphingolipid

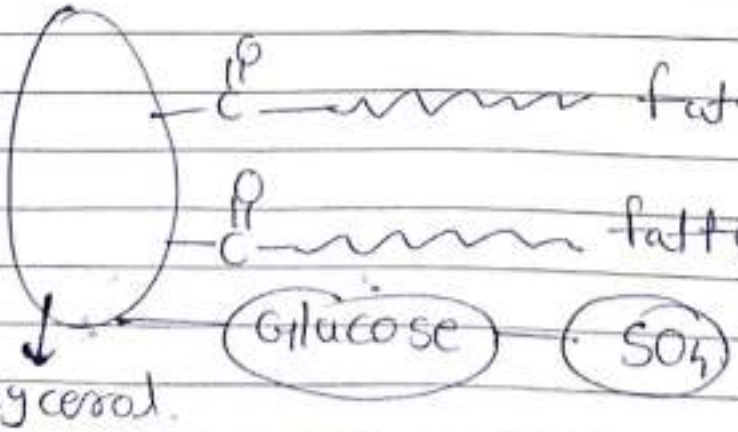
ii) Galactolipids

— These are Glycerol based lipids
— Contain 1 or two galactose residues connect by glycosidic linkage to C-3 of 1,2 -diglycerol.
— found in plants. Present in thylakoid membrane of chloroplast.
— They account for 70% - 80% of total membrane lipid of vascular plant.
— most abundant lipid in biosphere
• structure of Galactolipid



iii) Sulpholipid

— glycerol based lipid.
— found in Plant cell membrane
— Growth limiting factor.
— These lipid contain Sulfonated glucose residue joined to diacylglycerol by glycosidic linkage



Structure of Sulpholipid.

10

10/10

GoodLuck | Page No. | Date

BSC-I - Open book test.
Date:- 23/01/2025
Roll NO:- 7483
Sub:- microbiology.

Q. what is are lipids? discribe in detail complex lipids?

→ The lipids is the collective term for molecules derived from living organisum which are least soluble in waters.
- readily soluble in nonplar environment.
- This are aggregate due to hydrophobic interaction.

- complex lipid.

- These are the ester of fatty acids with alcohol. but in addition,
- they contain groups like phosphate or carbohydrate.
- The complex lipid generally contain phosphonds, nitrogen and sulphur.

a) phospholipids.
- these lipids contain phosphate.
- The two types of alcohole are found in phospholipids. that is glycerol or sphingosine.
- The phospholipid may glycerol-based called as glycerophospholipid

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

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR

(An Empowered Autonomous Institute)

Department of Microbiology

Academic Year 2024-2025

B. Sc. III Unit Test I

NOTICE

All the students of B. Sc. III (Microbiology) are hereby informed that the Unit test I is organized on the Unit I, Virology on 6th Jan., 2025 at 10.30am in classroom no. 415. All the students should attend in time.

Gaupale

Dr. T. C. Gaupale

I/C HEAD
DEPARTMENT OF MICROBIOLOGY
VIVEKANAND COLLEGE,KOLHAPUR
(EMPOWERED AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur (Empowered Autonomous)

Department of Microbiology

Academic Year 2024-25

B. Sc. III Unit Test I

Paper XIII Virology

Date: 06/01/2025

Sr. No	Student name	Roll No.	Sign
1	Bhosle Vedika Sudhir	8387	
2	Chavan Sanika Pradeep	8388	Ab
3	Chougale Sanika Vishnu	8389	
4	Dinde Ankita Rangrao	8390	
5	Gaikwad Divya Sanjay	8391	Ab
6	Gaikwad Nikita Nandkumar	8392	
7	Gurav Mansi Sunil	8393	Ab
8	Hajare Aishwarya Ganesh	8394	Ab
9	Hardikar Yogi Ashutosh	8395	Ab
10	Jadhav Karan Dipak	8396	Ab
11	Jadhav Vinayak Sanjay	8397	Ab
12	Jasud Rutuja Tanaji	8398	
13	Jevrani Simran Anil	8399	Ab
14	Kachare Ishwari Pradeep	8400	
15	Kamat Sanskruti Santosh	8401	Ab
16	Khanvilkar Anjali Hemant	8402	Ab
17	Kharade Sanchit Sachin	8403	
18	Khot Vaishnavi Jitendra	8404	
19	Korane Harshad Mahesh	8405	Ab
20	Kulkarni Sai Vivek	8406	Ab
21	Lad Anjali Vijay	8407	
22	Ligade Smeet Sunil	8408	Ab
23	Majgavkar Sanika Sagar	8409	
24	Mali Prachi Sanjay	8410	Ab
25	Mane Rohan Baban	8411	Ab
26	Mujawar Aabida Altaf	8412	
27	Parulekar Diksha Devdatta	8413	Ab
28	Patil Avantika Arun	8414	Ab
29	Patil Kartikraj Bhagwan	8415	Ab
30	Patil SammedAnnaso	8416	
31	Patil Sharwari Yuvraj	8417	
32	Patil Suhani Sadashiv	8418	
33	Powar Diya Kiran	8419	
34	Prabhu Savali Shivaji	8420	

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

35	Shaikh Rizwan firoj	8421	
36	Shelke Yogesh Balu	8422	AL
37	Shewale Prithviraj Subhash	8423	AL
38	Sonule Sushant Krishnat	8424	
39	Sutar Jayshri Krishnat	8425	AL
40	Todkar Nirjara Shivaji	8426	AL
41	Wadkar Samrudhi Dhanaji	8427	
42	Yadav Sushant Harishchandra	8428	AL
43	Yatam Ashutosh Bhagvan	8429	AL
44	Harshe Arpita		AL

Teacher : Mr. S. D. Gabale-

VIVEKANAND COLLEGE, KOLHAPUR

(An Empowered Autonomous Institute)

Department of Microbiology

B. Sc. III Unit Test I

Date: 06/01/2025

Time: 1 Hour **Marks: 20**

Q.1 Define capsid. Explain in detail types of capsid with suitable examples. **(10M)**

Q. 2 Attempt any Two **(10M)**

i. Prions

ii. One step growth experiment

iii. Viral nucleic acid

VIVEKANAND COLLEGE, KOLHAPUR

(An Empowered Autonomous Institute)

Department of Microbiology

B. Sc. III

Virology Unit Test I

RESULT

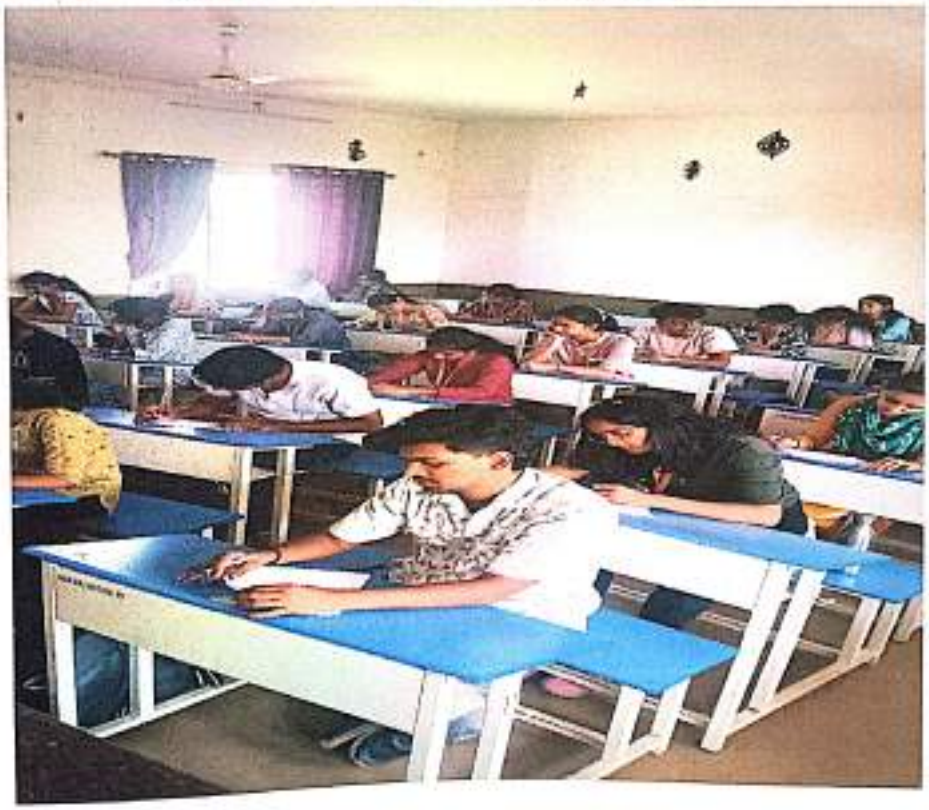
Sr. No	Student name	Roll No.	Marks (Out of 20)
1	Bhosle Vedika Sudhir	8387	10
2	Chavan Sanika Pradeep	8388	Absent
3	Chougale Sanika Vishnu	8389	16
4	Dinde Ankita Rangrao	8390	15
5	Gaikwad Divya Sanjay	8391	Absent
6	Gaikwad Nikita Nandkumar	8392	12
7	Gurav Mansi Sunil	8393	Absent
8	Hajare Aishwarya Ganesh	8394	Absent
9	Hardikar Yogi Ashutosh	8395	Absent
10	Jadhav Karan Dipak	8396	Absent
11	Jadhav Vinayak Sanjay	8397	Absent
12	Jasud Rutuja Tanaji	8398	12
13	Jevrani Simran Anil	8399	Absent
14	Kachare Ishwari Pradeep	8400	14
15	Kamat Sanskruti Santosh	8401	Absent
16	Khanvilkar Anjali Hemant	8402	Absent
17	Kharade Sanchit Sachin	8403	Absent
18	Khot Vaishnavi Jitendra	8404	12
19	Korane Harshad Mahesh	8405	Absent
20	Kulkarni Sai Vivek	8406	Absent
21	Lad Anjali Vijay	8407	07
22	Ligade Smeet Sunil	8408	Absent
23	Majgavkar Sanika Sagar	8409	14
24	Mali Prachi Sanjay	8410	Absent
25	Mane Rohan Baban	8411	Absent
26	Mujawar Aabida Altaf	8412	15

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

27	Parulekar Diksha Devdatta	8413	Absent
28	Patil Avantika Arun	8414	Absent
29	Patil Kartikraj Bhagwan	8415	Absent
30	Patil SammedAnnaso	8416	12
31	Patil Sharwari Yuvraj	8417	13
32	Patil Suhani Sadashiv	8418	12
33	Powar Diya Kiran	8419	10
34	Prabhu Savali Shivaji	8420	Absent
35	Shaikh Rizwan firoj	8421	11
36	Shelke Yogesh Balu	8422	Absent
37	Shewale Prithviraj Subhash	8423	Absent
38	Sonule Sushant Krishnat	8424	15
39	Sutar Jayshri Krishnat	8425	Absent
40	Todkar Nirjara Shivaji	8426	Absent
41	Wadkar Samrudhi Dhanaji	8427	15
42	Yadav Sushant Harishchandra	8428	Absent
43	Yatam Ashutosh Bhagvan	8429	Absent
44	Harshe Arpita		Absent

ESTD JUNE

Dr. T. C. Gaupale
HC HEAD
DEPARTMENT OF MICROBIOLOGY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)



B.Sc. III Unit Test (Virology) on 06/01/02025

VIVEKANAND COLLEGE KOLHAPUR (An Autonomous)
ESTD JUNE 1964

Virology Unit test - 1
Date - 6/1/24
7878.

Q.1 Define capsid explain in detail types of capsid with suitable examples. (8 marks)

10
20

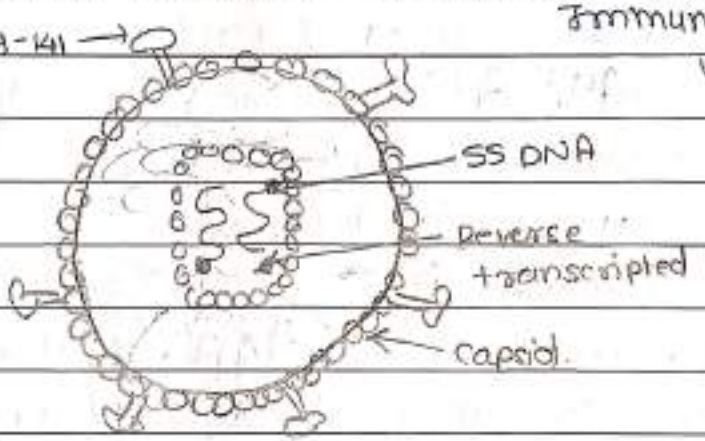
Q.2 Attempt any two- (4 marks)

1) Prions
2) One step growth experiment
3) Viral Nucleic acid

→ Q1) - Capsid is outer layer made up of small unit of capsomer
- capsomer made up of # proteins.
- The small unit of capsomers produce capsid
- The one protein present in there then the capsomers & producer are equivalent.
- The two protein present there then the capsomer and producer are not equivalent.
- There are 3 types of capsids are as follows-
  1) Icosahedral capsid
  2) Helical capsid
  3) Complex capsid

1) Icosahedral capsid-
- In this capsid capsid shows spherical symmetry so it is called icosahedral or spherical symmetry
- This capsid have 36 faces in 3D they shows 12 faces
- Corners are 6 in 3D they shows 12 corners.
- Edges are 4.
- The small unit of capsomer made up of 7 proteins.

There are two types of Icosahedron - Polymer - Pentamer or Pentan & Hexamer
- in Pentamer icosahedron 5 corners at icosahedron and in Hexamer there are 6 edges and triangular faces. It infects The C4 & macrophages
example of capsid (Icosahedral) - TMV.
TMV - is ~~nonenveloped or enveloped~~.
- This is plant virus it infects the Tobacco plant & form mosaic structure - HIV - Human Immuno deficiency virus.



2) Helical capsid / Rod symmetry
- In this capsid capsomer shows Helical shape or rod symmetry so it called 'Helical capsid'.
- There are two types of viral capsid one is Nacked capsid or enveloped.
- This capsid define the lenght of genome.
- Example of Helical capsid is HIV.

TMV ϕ - H is plant virus, causes mosaic virus on tobacco leaves.

TMV

3) Complex capsid-

- This shows the both icosahedral & Helical capsids characters so it called the complex capsid.

eg- Mumps virus.

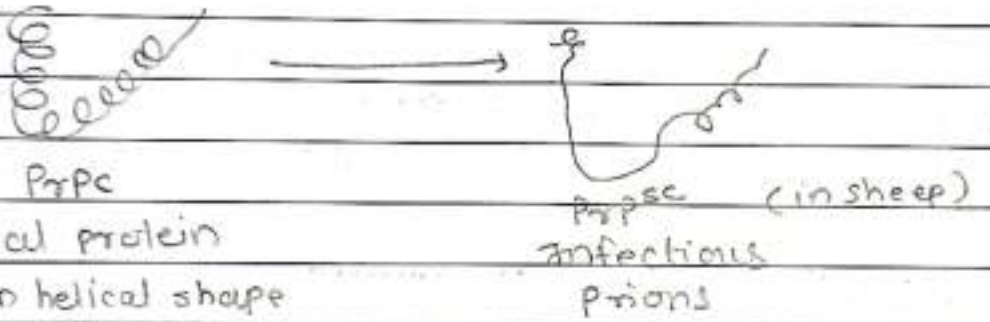
Example :-

06

Q.2 Short Note -

1) Prions -

- Prions is a misfolded protein that take ability to infects or causes infection.
- Prion mostly infectious causes in mammals
- It is a protein that wrongly folded so it's function get changes and cause infection and it act or infects the nervous system.
- Prions are nothing but infectious protein.
-



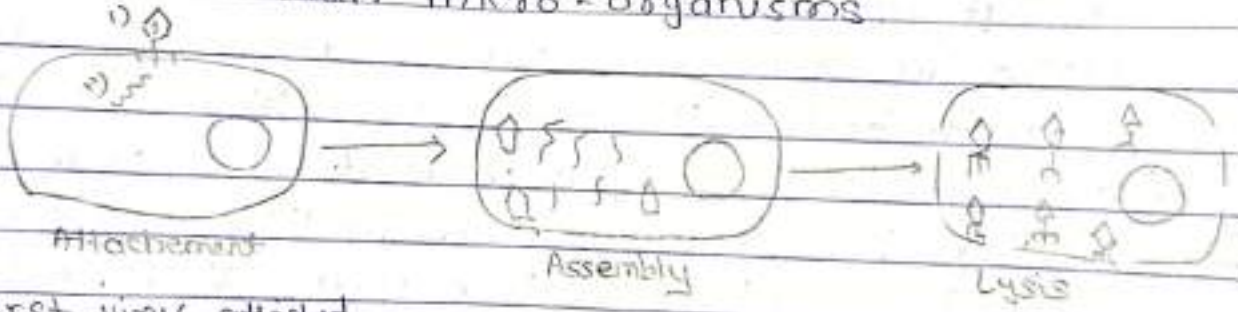
- It is obligate intracellular parasites.
- It affects the brain.
- Its incubation period is slow so it causes slowly
- Incubation period of prion is several months or years also.
- Prions slowly causing.
- Prion name meaning - infectious proteins.
- They converts the protein into prions which are present in our nervous system.

Structure
More properties needed

03

2) One step growth experiment-

- One step growth experiment discovered by L. Elis & Debruk in 1991
- Debruk awarded the nobel prize for this experiment.
- They proof in that experiment the virus quantity or virus numbers, in sample.
- Virus is small infectious particles it is smaller than micro-organisms.



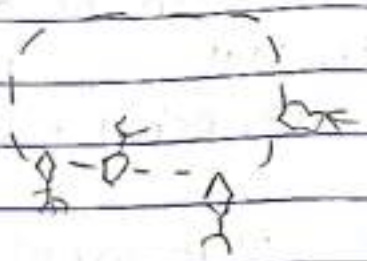
3) first virus attached to the cell.

2) Then it transfer their ~~DN~~ genetic materia through tail.

3) Assembly -
In Assembly virus makes the body parts like tail, fibers head

4) Lysis -
In this phase virus lyse the cell with their pressure.

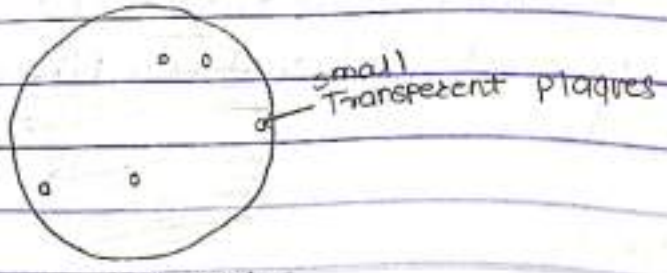
then they release out the cell to cause infection.



- Experimen-

1) In this experiment scientis take sample mixed with host - the ratio is - 10:1000 = 1:100
2) Then this sample incubate for 10 min at 37°c
3) Then this sample pour in BTA agar plate and spread it and incubate for 24 hrs at 37°c
4) Then second day ~~we~~ observed the samall plagres plagres is nothis but the viruses
5) Plagre numbers decided the sample contains how much virus partical at one time so it experment called `one step growth experiment'

Stages in one step growth experiment →



BTA Plate

02 →

"Dissemination of Education for Knowledge, Science and Culture"

-Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR(EMPOWERED AUTONOMOUS)

Department of Microbiology

Academic Year 2024-2025

Notice for BSc I

Date –23/08/2024

All the students of B.Sc. I are hereby informed that their **Unit Test** has been scheduled on 30/08/2024,Friday. Syllabus for unit test will be Bacteriology Unit II CONTROL OF MICROORGANISMS. Test will be of 20 marks. Hence all students are instructed to prepare accordingly. Attendance for test is compulsory to everyone. All students should remain present for test on time.

VIVEKANAND COLLEGE KOLHAPUR * (Empowered Autonomous) * ESTD JUNE 1964

Dr. G. K. Sontakke
HEAD
DEPARTMENT OF MICROBIOLOGY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

"Dissemination of Education for Knowledge, Science and Culture"

-ShikshanmaharshiDr. Bapuji Salunkhe

Shri Swami VivekanandShikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR (EMPOWERED AUTONOMOUS)

Department of Microbiology

Academic Year 2024-2025

BSc I

Question Paper for Unit Test

Instructions: 1) All the questions are compulsory.

2) Figures to the right indicate full marks.

3) Draw neat labelled diagrams wherever necessary.

Time: 1 hour Total Marks: 20

Unit II Control of Micro-organisms

Que. 1 Select correct alternative. (8)

i) _____ is the condition in which growth of micro-organism is prevented.

a)Antisepsis b)Sanitization c)Microbiostasis d)Sanitization

ii)Filtration is _____of micro-organism from any liquid making them free of micro-organism.

a) Killing b)Destruction c)Disruption d)Removal

iii) Gamma radiations are high energy radiations, normally obtained from radioactive substance like_____.

a) Cobalt $_{60}$ b)Radon c)Polonium d)Radium

iv)The _____ wavelength of UV rays used in sterilization has highest microbicidal action.

a)260 nm b)390 nm c)265 nm d)300 nm

v)HEPA filters are employed in_____.

a)Autoclave b)laminar air flow c)Hot air sterilizer d)Seitz filter

vi)Tincture of iodine contains _____ iodine in water ethanol solution of potassium Iodide.

a)2% b) 1% c)2% or more d) 2% or less.

vii)Heavy metals kills microbes by binding to_____.

a)Proteins b)Nucleic acid c)Lipids d)ribosomes

viii)_____ lining in incubators help reduce contamination of cell cultures.

a) Silver b)Mercury c)Aluminium d)Copper

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

Que. 2 Attempt any One. (8)

1.Describe in detail use of temperature as a physical agent for control of micro-organisms.

2.Describe in detail radiations in control of micro-organisms.

Que. 3 Attempt anytwo. (4)

i)Pasteurization

ii) Membrane Filter

- Name - Surabhi Vishal Bele 30/08/24
- Roll. No - 7472
- Microbiology → 'control of Micro-organisms'.

15 1/2 / 20

Q. 2)

→ physical agents are frequently used for control of micro-organis are temperature. (heat), osmotic pressure, Radiations, filte -rations.

- Temperature :- Temperature is the most used method to control of micro-organisms. & It's effectiveness is evaluated in different way

1) Thermal Death time & the D-value are the part of to measure logarithmic growth of micro-organisms.

2) The temperature method is used to such heated equipments to control micro-organisms such as ① dry-heat, ② Moist heat, ③ dessicat

① Dry heat :- It is the best, usetul meth to control microorganisms, Dry heat (Absen of water or moisture) is achieved by 'hot air oven' apparatus.

- Construction :- It has 3 walls & 2 air spaces & it is outer side covered with asbestos layer which prevents radiation of heat & air is heated by electric currents, it is circulated through conv -ection currents, it is operated normally at 160 to 180°C for ~~1~~ 1 1/2 hr.

- Mechanism of actions :- Microbial growth apperantly results from oxidation of cell constituents & degraded proteins.

after sterilization it is stored in low temperature.
- However, some dairy industries used ultrahigh temperature (UHT) and milk is exposed to the 140 to 150°C, and after sterillization it is stored in room temp without changing the flavour.

(b) Membrane filters:- Made up of biologically inert, non-reactive material like cellulose esters eg. cellulose acetate, cellulose nitrate etc. It is a thin, membranous, circular porous structure usually of 150 μM and 0.2 μ sized filter is used to filtered vegetative cells.
- It is very useful and easy to handle & have low retension capacity.
- Mechanism of action :- Removal of microb by physical screening.
- uses :- used in pharmaceuticals & culture mediums, etc.
- filtered without distruction but it is used for removal.

Q.1

(1) (a) Microbiostasis It is the condition in which growt of micro-organisms prevents.

(2) Filteration is (d) Removal of microbes from any liquid making them free.

(3) Gamma radiations are high energy radiation obtained from radioactive substances like (a) cobalt 60.

(4) The (a) 260nm wavelength of UV rays used in sterilization has highest microbial action.

(5) HEPA filters are employed in (b) Laminar air flow.

(6) Tincture of iodine contains (c) 2% or more iodine in water ethanol solution of potassium iodide.

(7) Heavy metals kills microbes by binding to (a) proteins.

(8) (a) Silver lining in incubations help to reduce contamination of cell cultures.

Seen

"Dissemination of Education for Knowledge, Science and Culture"

-Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPU(EMPOWERED AUTONOMOUS)

Department of Microbiology

Academic Year 2024-2025

Unit Test Attendance for BSc I

Date:30/08/2024

Teacher Name: Ms. S. S. Shaikh

Sr.no	Name of the student	Roll no.	Signature
1.	Ambale Riya Sunil	7469	Ab
2.	Ambale Siddhi Yuvraj	7470	Ab
3.	Balugade Vaishnavi Shahaji	7471	vbalugade
4.	Bele Surbhi Vishal	7472	
5.	Chile Sanket Dattatray	7474	Ab
6.	Chougule Sanika Tanaji	7475	Ab
7.	Dalavi Trailokya Nitin	7476	T.N.D
8.	Deshmukh Sanskruti Tanaji	7477	Deshmukh
9.	Ghosarawade Arati Ramachan	7478	Ab
10.	Gutte Tukaram Dattatrey	7479	
11.	Jadhav Parth Suhas	7480	Ab
12.	Jagtap Anjali Shamrao	7481	Ab
13.	Jamadar Saba Mirasahab	7482	Saba
14.	Jamadar Sadiya Ibrahim	7483	
15.	Kamble Antara Shesherao	7484	Akamble
16.	Kamble Sharwari Bajirao	7485	Ab
17.	Khot Vaishnavi Rajaram	7486	Ab
18.	Kole Rajnandini Balasaheb	7487	Ab
19.	Korane Sakshi Bhaskar	7488	Skorane

VIVEKANAND COLLEGE KOLHAPUR (E) ESTD JUNE 1964

Feb 25, 2026, 2:03

20.	Kulkarni Pratiksha Prashant	7489	Ab
21.	Kumbhar Priyanka Dipak	7490	Priyanka
22.	Kumbhar Samiksha Sanjay	7491	Ab
23.	Mali Tanuja Ajit	7492	Tanuja
24.	MoleNikitaTanaji	7493	Nmole
25.	More Siya Kailas	7494	Ab
26.	Nadaf Asiya Dastgir	7495	Asiya
27.	Nadaf Pinjari Tasneem Bhola	7496	Ab
28.	Palkar Vaishnavi Prakash	7497	Ab
29.	Parit Haripriya Amar	7498	Ab
30.	Parit Priti Anil	7499	Ab
31.	Patil Anuradha Rajaram	7500	Ab
32.	Patil Jyoti Suresh	7501	Jyoti
33.	Patil Raju Tanaji	7502	Ab
34.	Patil Riya Uttam	7503	Ab
35.	Patil Rutuja Ravsaheb	7504	Ab
36.	Patil Saloni Gajkumar	7505	Saloni
37.	Patil Sanjivani Vishnu	7506	Ab
38.	Patil Shreya Sunil	7507	Ab
39.	Patil Shubhangi Uattam	7508	Ab
40.	Patil Unmesh Yashwant	7509	Ab
41.	Patil Vaishnavi Dipak	7510	Patil
42.	Pendhari Simran Mahamad	7511	Simran
43.	Pol Gunjan Vijay	7512	Ab
44.	Raul Gauri Pramod	7513	Ab
45.	Sabale Aditi Akaram	7514	Sabale
46.	Shinde Samruddhi Vijay	7515	S.V.Shinde
47.	Sutar Shweta Prabhakar	7516	Ab
48.	Thombare Shruti Vinayak	7517	Ab
49.	Vhanmane Pranali Mhalappa	7518	Vhanmane
50.	Bhoje Adesh Chandrakant	7519	
51.	Dalvi Janhvi Ananda	7520	Ab
52.	Gurav Varsha Tanaji	7521	Ab

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

53.	Khot Nikita Tanaji	7522	Ab
54.	Koli Divya Dilip	7523	Koli
55.	Salunke Vaishnavi Ranjeet	7524	Ab
56.	Singh Badal Kamalendra	7525	Ab
57.	Sontakke Vaishnavi Vinayak	7526	Sontakke.
58.	Thanekar Sanika Jotiram	7527	S.J.Thanekar
59.	Vasagade Shreya Jinendra	7528	Vasagade

Dr. G. K. Sontakke
HEAD
DEPARTMENT OF MICROBIOLOGY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous)
ESTD JUNE 1964

"Dissemination of Education for Knowledge, Science and Culture"

-Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE,KOLHAPUR(EMPOWERED AUTONOMOUS)

Department of Microbiology

Academic Year 2024-2025

Result Analysis for Unit Test of BSc I

Date :31/08/2024

Teacher Name: Ms. S. S. Shaikh

Sr.no	Name of the student	Roll no.	Signature	Marks
1.	Ambale Riya Sunil	7469	Ab	—
2.	Ambale Siddhi Yuvraj	7470	Ab	—
3.	Balugade Vaishnavi Shahaji	7471	VBalugade	7
4.	Bele Surbhi Vishal	7472	Surbhi	16
5.	Chile Sanket Dattatray	7474	Ab	—
6.	Chougule Sanika Tanaji	7475	Ab	—
7.	Dalavi Trailokya Nitin	7476	T.N.Dalvi	6
8.	Deshmukh Sanskruti Tanaji	7477	Deshmukh	11
9.	Ghosarawade Arati Ramachan	7478	Ab	—
10.	Gutte Tukaram Dattatrey	7479		6
11.	Jadhav Parth Suhas	7480	Ab	—
12.	Jagtap Anjali Shamrao	7481	Ab	—
13.	Jamadar Saba Mirasahab	7482	Saba	0
14.	Jamadar Sadiya Ibrahim	7483		3
15.	Kamble Antara Shesherao	7484	AKamble	7
16.	Kamble Sharwari Bajirao	7485	Ab	—
17.	Khot Vaishnavi Rajaram	7486	Ab	—
18.	Kole Rajnandini Balasaheb	7487	Ab	—
19.	Korane Sakshi Bhaskar	7488	Korane	3

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964

20.	Kulkarni Pratiksha Prashant	7489	Ab	—
21.	Kumbhar Priyanka Dipak	7490	Priyanka	3
22.	Kumbhar Samiksha Sanjay	7491	Ab	—
23.	Mali Tanuja Ajit	7492	Anali	4
24.	Mole Nikita Tanaji	7493	Nmole	8
25.	More Siya Kailas	7494	Ab	—
26.	Nadaf Asiya Dastgir	7495	Asiya	5
27.	Nadaf Pinjari Tasneem Bhola	7496	Ab	—
28.	Palkar Vaishnavi Prakash	7497	Ab	—
29.	Parit Haripriya Amar	7498	Ab	—
30.	Parit Priti Anil	7499	Ab	—
31.	PatilAnuradhaRajaram	7500	Ab	—
32.	Patil Jyoti Suresh	7501	Jyoti	4
33.	Patil Raju Tanaji	7502	Ab	—
34.	Patil Riya Uttam	7503	Ab	—
35.	Patil Rutuja Ravsaheb	7504	Ab	—
36.	Patil Saloni Gajkumar	7505	SPatil	6
37.	Patil Sanjivani Vishnu	7506	Ab	—
38.	Patil Shreya Sunil	7507	Ab	—
39.	Patil Shubhangi Uattam	7508	Ab	—
40.	Patil Unmesh Yashwant	7509	Ab	—
41.	PatilVaishnaviDipak	7510	Patil	4
42.	Pendhari Simran Mahamad	7511	Simran	3
43.	Pol Gunjan Vijay	7512	Ab	—
44.	Raul Gauri Pramod	7513	Ab	—
45.	Sahale Aaditi Akaram	7514	Sahale.	6
46.	Shinde Samruddhi Vijay	7515	S.V.Shinde	10
47.	Sutar Shweta Prabhakar	7516	Ab	—
48.	Thombare Shruti Vinayak	7517	Ab	—
49.	Vhanmane Pranali Mhalappa	7518	P.Vhanmane-	8
50.	Bhoje Adesh Chandrakant	7519	.	10
51.	Dalvi Janhvi Ananda	7520	Ab	—
52.	Gurav Varsha Tanaji	7521	Ab	—

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

53.	Khot Nikita Tanaji	7522	AB	—
54.	Koli Divya Dilip	7523	Koli	Koli 4
55.	Salunke Vaishnavi Ranjeet	7524	AB	—
56.	Singh Badal Kamalendra	7525	AB	—
57.	Sontakke Vaishnavi Vinayak	7526	Sontakke	2
58.	Thanekar Sanika Jotiram	7527	S.J. Thanekar	3
59.	Vasagade Shreya Jinendra	7528	Vasagade	4

Dr. G. K. Sontakke
HEAD
DEPARTMENT OF MICROBIOLOGY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

"Dissemination of Education for Knowledge, Science and Culture"
-ShikshanmaharshiDr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR (EMPOWERED AUTONOMOUS)

Department of Microbiology

Academic Year 2024-2025

Date:31/08/2024

Notice to BSc I Students Absent for Unit Test

To Students,

This is to inform following students who were absent for the recent Unit Test dated 30/08/2024 that, as per our academic policy, you may not be able to appear for the upcoming Internal Exam. Your absence from the Unit Test is considered a serious matter, and you are solely responsible for any academic loss incurred as a result.

Sr.no	Name of the student	Roll no.
1.	Ambale Riya Sunil	7469
2.	Ambale Siddhi Yuvraj	7470
3.	Chile SanketDattatray	7474
4.	Chougule Sanika Tanaji	7475
5.	Ghosarawade Arati Ramachan	7478
6.	Jadhav Parth Suhas	7480
7.	Jagtap Anjali Shamrao	7481
8.	Kamble Sharwari Bajirao	7485
9.	Khot Vaishnavi Rajaram	7486
10.	Kole Rajnandini Balasaheb	7487
11.	Kulkarni Pratiksha Prashant	7489
12.	Kumbhar Samiksha Sanjay	7491
13.	More Siya Kailas	7494
14.	Nadaf Pinjari Tasneem Bhola	7496
15.	Palkar Vaishnavi Prakash	7497
16.	Parit Haripriya Amar	7498
17.	Parit Priti Anil	7499
	Patil Anuradha Rajaram	7500

ESTD JUNE 1964

18.	Patil Raju Tanaji	7502
19.	Patil Riya Uttam	7503
20.	Patil Rutuja Ravsaheb	7504
21.	Patil Sanjivani Vishnu	7506
22.	Patil Shreya Sunil	7507
23.	Patil Shubhangi Uattam	7508
24.	Patil Unmesh Yashwant	7509
25.	Pol Gunjan Vijay	7512
26.	Raul Gauri Pramod	7513
27.	Sutar Shweta Prabhakar	7516
28.	Thombare Shruti Vinayak	7517
29.	Dalvi Janhvi Ananda	7520
30.	Gurav Varsha Tanaji	7521
31.	Khot Nikita Tanaji	7522
32.	Salunke Vaishnavi Ranjeet	7524
33.	Singh Badal Kamalendra	7525

Dr. G. K. Somtakke
HEAD
DEPARTMENT OF MICROBIOLOGY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR
ESTD
JUNE
1954

"Dissemination of Education for Knowledge, Science and Culture"

-Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR(EMPOWERED AUTONOMOUS)

Department of Microbiology (UG)

Academic Year 2024-2025

Notice

Date –20/09/2024

All the students of B.Sc. I are hereby informed that their **Test** has been scheduled on 28/09/2024, Saturday. Test will be of 15 marks. Hence all students are instructed to prepare accordingly. Attendance for test is compulsory to everyone. All students should remain present for test on time.

Title of paper	Date and Time	Venue	Topic
DSC-I DSC 03MIC12 Bacteriology Unit II	28/09/2024 9:30-10:30 am	Room no. 64	Fumigation by Gaseous Agents

ESTD JUNE 1964

Dr. G. K. Sontakke
I/C Head
Department of Microbiology
Vivekanand College,Kolhapur
(Empowered Autonomous)

"Dissemination of Education for Knowledge, Science and Culture"

-ShikshanmaharshiDr. Bapuji Salunkhe

Shri Swami VivekanandShikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR(EMPOWERED AUTONOMOUS)

Department of Microbiology (UG)

Academic Year 2024-2025

BSc I

Question Paper for Unit Test

Instructions: 1) All the questions are compulsory.

2) Figures to the right indicate full marks.

3) Draw neat labelled diagrams wherever necessary.

Time: 1 hour Total Marks: 15

Unit II Control of Micro-organisms

(Fumigation by Gaseous Agents)

Que. 1 Select correct alternative. (5)

i)Gaseous agents are alkylating agents which act by replacing a hydrogen atom within a molecule with an _____ group, thereby inactivating enzymes and nucleic acids.

A)Alkyl group B)Aryl group C)Amine group D)Hydroxyl group

ii)Ethylene oxide is used in sterilization of _____.

A)Spacecraft B)Needles C)Food D)Water

iii)Pure ethylene is explosive, thus it is either combined with CO_2 nitrogen or _____ to form a mixture.

A)Dichloride B)Diflouride C)Methane D)Dichlorodiflouromethane

vi)Blood plasma, milk and water can be sterilized using _____.

A)Beta-propiolactone B)Formaldehyde C)Chlorine D)Ethylene oxide

v)Beta propiolactone can be metabolized by animals and humans to_____.

A)Lactose B)fructose C)Lactic acid D)acetic acid

Q.2 write short note on (Any two)

i)Ethylene oxide

ii)Beta-propiolactone iii)Formaldehyde

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964

Name - Surabhi Vishal Bele
Roll No. - 7472 Unit test - 02

Microbiology - Gaseous agent

13/15

Q 1. MCQ's

i) Gaseous agents alkylating agents which act by raplacing a hydrogen atom within a molecule with an A) Alkyl group thereby inactivating enzymes and nucleic acids. 1

ii) Ethylene oxide is used in sterilisation of A) spacecraft 1

iii) pure ethylene is explosive, thus it is either combined with co2 nitrogen or D) Dichlorodi flouromethane 1

iv) Blood plasma, milk and water can be sterilize using A) Beta propiolactone 1

v) Beta propiolactone can be metabolised by animal and humans to C) Lactic acid. 1

Short Notes

Ethylene oxide :- (H_2C-CH_2 with O bridge)

→ gaseous agents are used to steriliz heat sensitive material. It is an al ting agent. acts as replacing hydrogen within molecule with alkyl group (C_nH_{2n} It is an highly penetrating and steri items within plastic bags such as cath and disposable in laboratories. It is an at temperatures. below 10.8 °C. It is vapourises rapidly above this tempe it is very toxic, and pure ethylene is ex thus, it combines with. CO_2. and Nitroger Dichlorodiblouromethane formed the mixt it's sterilisation is takes place in speci equipmentinwhich concentration of ethylen oxide.

Sterilisation of clean object 700 mg/l of gas at 40-50% humidity. at 5-8 hrs. 38°C or 3-4 hrs at 54°C. Howevere, extensi of aeration is followed sterillization. and re -ves excess of gas.

Mode of action :- It has great penetr ating power and has good sterillization. it penetrates through packadge materials.

It cause alkylation of enzymes and proteins with SH group.

H_2C-CH_2 (O) + EsH ⟶ Enzyme-S-CH_2-CH_2-OH

It is inactivates the ...

Uses / Application :- It is a sterilization. which is applied for heat sensitive materials such as spices, soil, plastic, contaiminated laboratory equipment such as disposable. plastic petriplates, Biological preperations heart - lung machines, sutures, catheters and newly formed medical divices.

ii) B- propiolactone :-

→ $\left(\begin{array}{l} CH_2 - CH_2 \\ | \\ O - C = O \end{array}\right)$

3- It is an also acytalating agents and it is a clear liquid with strong oudour and ability to kill endospores. and it is prese in gaseous and liquid forms used for. sterillization. and it is quickly metabolizing for human and animals to lactic acid, it is an irritant. It cause permanant damage to eyes, liver, Kidney. and it is very carcinogenic. precautions are necessary minimize explosive to BPL.

Uses / applications :- It is a sterilization. of vaccines and sera. It can be sterilized blood plasma and milk and water.

"Dissemination of Education for Knowledge, Science and Culture"

-ShikshanmaharshiDr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR(EMPOWEREDAUTONOMOUS)

Department of Microbiology

Academic Year 2024-2025

Unit Test Attendance for BSc I

Date:28/09/2024

Teacher Name: Ms. S. S. Shaikh

Sr.no	Name of the student	Roll no.	Signature
1.	Ambale Riya Sunil	7469	Ambale
2.	Ambale Siddhi Yuvraj	7470	Ambale.
3.	Balugade Vaishnavi Shahaji	7471	Ab
4.	Bele Surbhi Vishal	7472	Surbhi Bele.
5.	Chile Sanket Dattatray	7474	
6.	Chougule Sanika Tanaji	7475	Sanika
7.	Dalavi Trailokya Nitin	7476	
8.	Deshmukh Sanskruti Tanaji	7477	Deshmukh
9.	Ghosarawade Arati Ramachan	7478	
10.	Gutte Tukaram Dattatrey	7479	
11.	Jadhav Parth Suhas	7480	Ab
12.	Jagtap Anjali Shamrao	7481	
13.	Jamadar Saba Mirasahab	7482	Ab
14.	Jamadar Sadiya Ibrahim	7483	
15.	Kamble Antara Shesherao	7484	Akamble
16.	Kamble Sharwari Bajirao	7485	Ab
17.	Khot Vaishnavi Rajaram	7486	
18.	Kole Rajnandini Balasaheb	7487	
19.	Korane Sakshi Bhaskar	7488	Ab

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964

20.	Kulkarni Pratiksha Prashant	7489	Kulkarni
21.	Kumbhar Priyanka Dipak	7490	Kumbhar
22.	Kumbhar Samiksha Sanjay	7491	Ab
23.	Mali Tanuja Ajit	7492	Amali
24.	Mole Nikita Tanaji	7493	Ab
25.	More Siya Kailas	7494	More
26.	Nadaf Asiya Dastgir	7495	Asiya.
27.	Nadaf Pinjari Tasneem Bhola	7496	T.B.Nadaf.
28.	Palkar Vaishnavi Prakash	7497	Ab
29.	Parit Haripriya Amar	7498	Ab
30.	Parit Priti Anil	7499	P.A.Parit
31.	Patil Anuradha Rajaram	7500	a.r.Patil
32.	Patil Jyoti Suresh	7501	Jyoti
33.	Patil Raju Tanaji	7502	Ab
34.	Patil Riya Uttam	7503	Patil
35.	Patil Rutuja Ravsaheb	7504	R.R.Patil
36.	Patil Saloni Gajkumar	7505	S.G.Patil
37.	Patil Sanjivani Vishnu	7506	Patil
38.	Patil Shreya Sunil	7507	Patil
39.	Patil Shubhangi Uattam	7508	S.U.Patil
40.	Patil Unmesh Yashwant	7509	P.U.P.
41.	Patil Vaishnavi Dipak	7510	Patil
42.	Pendhari Simran Mahamad	7511	Ab
43.	Pol Gunjan Vijay	7512	Gpol
44.	Raul Gauri Pramod	7513	Ab
45.	Sabale Aditi Akaram	7514	Ab
46.	Shinde Samruddhi Vijay	7515	S.V.Shinde
47.	Sutar Shweta Prabhakar	7516	
48.	ThombareShrutiVinayak	7517	Thombare
49.	Vhanmane Pranali Mhalappa	7518	Ab
50.	Bhoje Adesh Chandrakant	7519	
51.	Dalvi Janhvi Ananda	7520	J.Dalvi
52.	GuravVarshaTanaji	7521	Ab
53.	Khot Nikita Tanaji	7522	Khot.

54.	Koli Divya Dilip	7523	Ab
55.	SalunkeVaishnavi Ranjeet	7524	Salunke
56.	Singh Badal Kamalendra	7525	Badal
57.	SontakkeVaishnavi Vinayak	7526	Ab
58.	Thanekar Sanika Jotiram	7527	Ab
59.	Vasagade Shreya Jinendra	7528	Vasagade

Teacher Incharge

Ms. S. S. Shaikh Shaikh

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

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

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE,KOLHAPUR(EMPOWERED AUTONOMOUS)

Department of Microbiology (UG)

Academic Year 2024-2025

Result Analysis for Unit Test of Bsc I

Date -30/09/2024

Sr.no	Name of the student	Roll no.	Signature	Marks
1.	Ambale Riya Sunil	7469		11
2.	Ambale Siddhi Yuvraj	7470		13
3.	Balugade Vaishnavi Shahaji	7471		Ab
4.	Bele Surbhi Vishal	7472		13
5.	Chile Sanket Dattatray	7474		04
6.	Chougule Sanika Tanaji	7475		09
7.	Dalavi Trailokya Nitin	7476		08
8.	Deshmukh Sanskruti Tanaji	7477		11
9.	Ghosarawade Arati Ramachan	7478		10
10.	Gutte Tukaram Dattatrey	7479		05
11.	Jadhav Parth Suhas	7480		Ab
12.	Jagtap Anjali Shamrao	7481		04
13.	Jamadar Saba Mirasahab	7482		Ab
14.	Jamadar Sadiya Ibrahim	7483		11
15.	Kamble Antara Shesherao	7484		10
16.	Kamble Sharwari Bajirao	7485		Ab
17.	Khot Vaishnavi Rajaram	7486		11
18.	Kole Rajnandini Balasaheb	7487		05
19.	Korane Sakshi Bhaskar	7488		Ab

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

20.	Kulkarni Pratiksha Prashant	7489		06
21.	Kumbhar Priyanka Dipak	7490		07
22.	Kumbhar Samiksha Sanjay	7491		03
23.	Mali Tanuja Ajit	7492		07
24.	Mole Nikita Tanaji	7493		Ab
25.	More Siya Kailas	7494		12
26.	Nadaf Asiya Dastgir	7495		11
27.	Nadaf Pinjari Tasneem Bhola	7496		10
28.	Palkar Vaishnavi Prakash	7497		Ab
29.	Parit Haripriya Amar	7498		Ab
30.	Parit Priti Anil	7499		07
31.	Patil Anuradha Rajaram	7500		05
32.	Patil Jyoti Suresh	7501		09
33.	Patil Raju Tanaji	7502		Ab
34.	Patil Riya Uttam	7503		05
35.	Patil Rutuja Ravsaheb	7504		10
36.	Patil Saloni Gajkumar	7505		10
37.	Patil Sanjivani Vishnu	7506		11
38.	Patil Shreya Sunil	7507		04
39.	Patil Shubhangi Uattam	7508		07
40.	Patil Unmesh Yashwant	7509		08
41.	Patil Vaishnavi Dipak	7510		09
42.	Pendhari Simran Mahamad	7511		03
43.	Pol Gunjan Vijay	7512		03
44.	Raul Gauri Pramod	7513		Ab
45.	Sabale Aditi Akaram	7514		Ab
46.	Shinde Samruddhi Vijay	7515		11
47.	Sutar Shweta Prabhakar	7516		07
48.	ThombareShrutiVinayak	7517		10
49.	Vhanmane Pranali Mhalappa	7518		Ab

VIVEKANAND COLLEGE KOLHAPUR (Autonomous)
ESTD JUNE 1964

50.	Bhoje Adesh Chandrakant	7519		11
51.	Dalvi Janhvi Ananda	7520		06
52.	GuravVarshaTanaji	7521		0
53.	Khot Nikita Tanaji	7522		09
54.	Koli Divya Dilip	7523		Ab
55.	SalunkeVaishnavi Ranjeet	7524		07
56.	Singh Badal Kamalendra	7525		03
57.	SontakkeVaishnavi Vinayak	7526		Ab
58.	Thanekar Sanika Jotiram	7527		Ab
59.	Vasagade Shreya Jinendra	7528		08

Teacher Incharge

Ms. S. S. Shaikh Shaikh

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

"Dissemination of Education for Knowledge, Science and Culture"

-Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR (AN EMPOWERED AUTONOMOUS INSTITUTION)

Department of Microbiology (UG)

Academic Year 2024-2025

Notice

Date –18/01/2025

All the students of B.Sc.-I are hereby informed that their **Unit Test** has been scheduled on 25/01/2025, Saturday. Test will be of 20 marks. Hence all students are instructed to prepare accordingly. Attendance for test is compulsory to everyone. All students should remain present for test on time.

Title of paper	Date and Time	Venue	Topic
DSC 03MIC22 Microbial Nutrition Unit II	25/01/2025 10:30- 11:30 am	Room no. 415	Enrichment and Isolation of Microorganisms from natural environment

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE

Dr. T. C. Gaupale

I/C HEAD
DEPARTMENT OF MICROBIOLOGY
VIVEKANAND COLLEGE,KOLHAPUR
(EMPOWERED AUTONOMOUS)

"Dissemination of Education for Knowledge, Science and Culture"

-Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR

(AN EMPOWERED AUTONOMOUS INSTITUTION)

Department of Microbiology

Academic Year 2024-2025

BSc I

Question Paper for Unit Test

Instructions: 1) All the questions are compulsory.

2) Figures to the right indicate full marks.

3) Draw neat labelled diagrams wherever necessary.

Time: 1 hour

Total Marks: 20

Microbial Nutrition Unit II

Que. 1 Select correct alternative. (8)

i) The primary goal of pure culture technique is to _____.

a) Grow a large number of bacteria

b) Study the interactions between different species of bacteria

c) Isolate a single species of bacteria from a mixed culture

d) kill all bacteria in a sample

ii) Which of the following techniques is not commonly used to obtain a pure culture of bacteria?

b) Streak plate method b) Spread plate method c) Pour plate method d)Enrichment Culture

iii) _____ is the only first step of pour plate technique and spread plate technique.

b) Serial dilution technique b) Dilution Shake culture c)Shake tube technique d)Streak plate technique

iv) A nichrome wire loop is used in _____ technique.

a) Spread plate b) Pour plate c) Streak plate d) Serial dilution

v) _____ is supplemented with glove ports.

a) Hydrogen jar b) Anaerobic chamber c) Crude anaerobic jar d) Anaerobic jar

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

vi)In Brewer's anaerobic jar, the lid of the jar contains heating element sur...
_____ catalyst .

a) Alpha-napthol b) Sodium hydroxide c) Cadmium d) Platinum.

vii) If we use thioglycollate in the medium it is responsible for _____.

a) Oxygen absorbing b) Oxygen releasing c) Carbon absorbing d) Carbon releasing

viii) In shake tube technique facultative organisms are found _____.

b) All over the tube b) At the bottom c) At the surface d) Below the surface

(8)

Que. 2 Attempt any **ONE**.

1. What is pure culture technique? Describe in brief the technique of isolation of pure culture.

2. Discuss in detail the techniques of cultivation of anaerobes by mechanical exclusion of free oxygen from the environment.

Que. 3 Attempt any **ONE**. (4)

i) Shake tube technique

ii) Classification of Micro-organisms with respect to oxygen requirement.

19/20

25/11/2025

D D M M Y Y Y Y

(1)

Name:- Samruddhi Vijay Shinde
Roll No:- 7515
B.Sc - I
Subject:- Microbial Nutrition and culture media
Unit - II

Q.1. Select correct alternative.

i) The primary goal of pure culture technique is to Isolate a single species of bacteria from a mixed culture

ii) Which of the following techniques is not commonly used to obtain a pure culture of bacteria? Enrichment culture.

iii) Serial dilution technique is the only first step of pour plate technique and spread plate technique

iv) A nichrome wire loop is used in streak plate technique.

v) Anaerobic chamber is supplemented with glove ports.

vi) In Brewer's anaerobic jar, the lid of the jar contains heating element surrounded by Platinum catalyst.

vii) If we use thioglycollate in the medium it is responsible for Oxygen absorbing.

viii) In shake tube technique facultative orga... are found At the bottom.

Q. 2 Attement any one.

1) What is pure culture technique? Describe in brief the technique of isolation of pure culture.

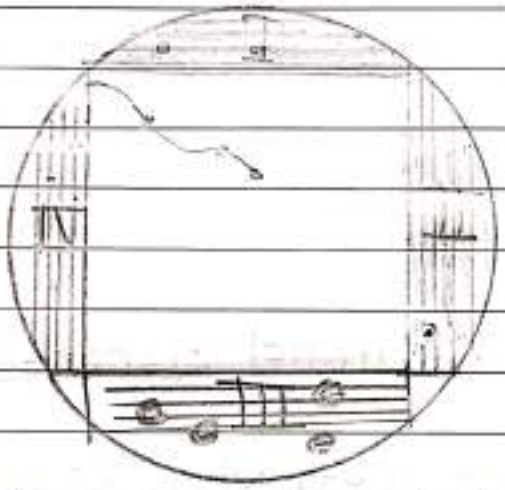
→ 1) The culture contain only one type of species of micro-organisms is called pure culture.

2) Techniques of isolation of pure culture :-
   i) Streak plate technique.
   ii) Spread plate technique.
   iii) Pore plate technique
   iv) Serial dilution technique.

3) Streak plate technique.
   i) It is mostly used or widely used technique to obtain pure culture.
   ii) In this method, first nichrome wire loop sterile by heating in flame of burner.
   iii) loop cooled for 5-10 sec.
   iv) loop dipped in mix culture tube and Streaking on surface of agar medium.
   v) After incubation, one can get well isolated colonies are form.
   vi) Streaking plate technique carry various ways. gudarant
   (1) fourth plate technique
   (2) Continous or Back fourth manner.
   (3) Parallel or non-overlapping method
   (4) Radiant method.

Qudrant
1) fourth Plate Technique.

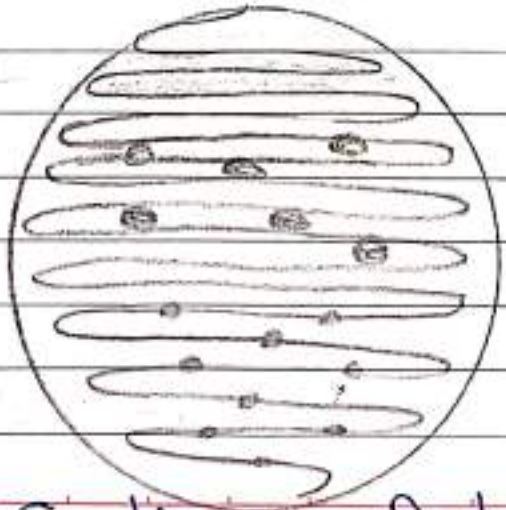
In this method, a loopful mixed culture Streak over the surface of 1/4th portion on the surface of agar medium, In form of parallel unidirecation. loop is sterile coled and streaking 2nd qudarant in similar way. the 2nd qudarant starting from end of first qudarant. 3nd and 4th qudarant carries similar ways.



fourth qudarant techaique.

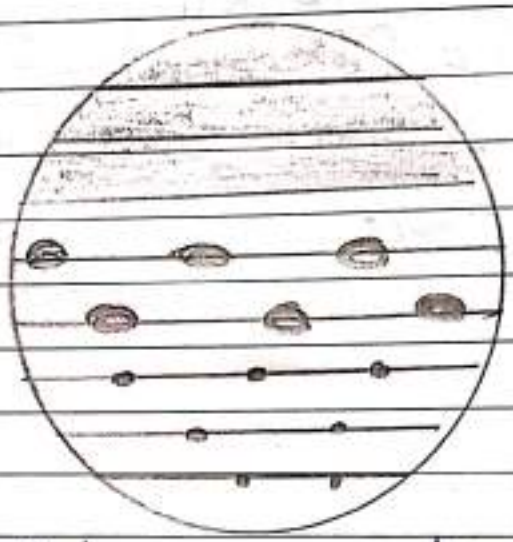
2) Continous or Back fourth manner.

In this method, a loopful suspension streaked on the surface of agar medium in form of continous Back fourth manner with speace about 0.5 cm.



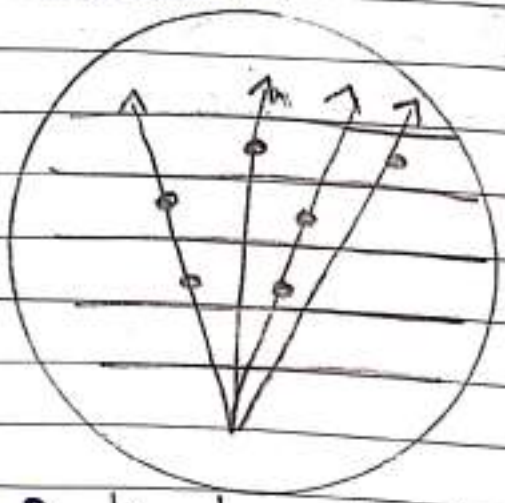
Continous or Back fourth manner

3) Parallel or non-overlapping method:
In this method, a loopful suspension streak on surface of agar medium in form parallel or non-overlapping streaking.



Parallel or non-overlapping.

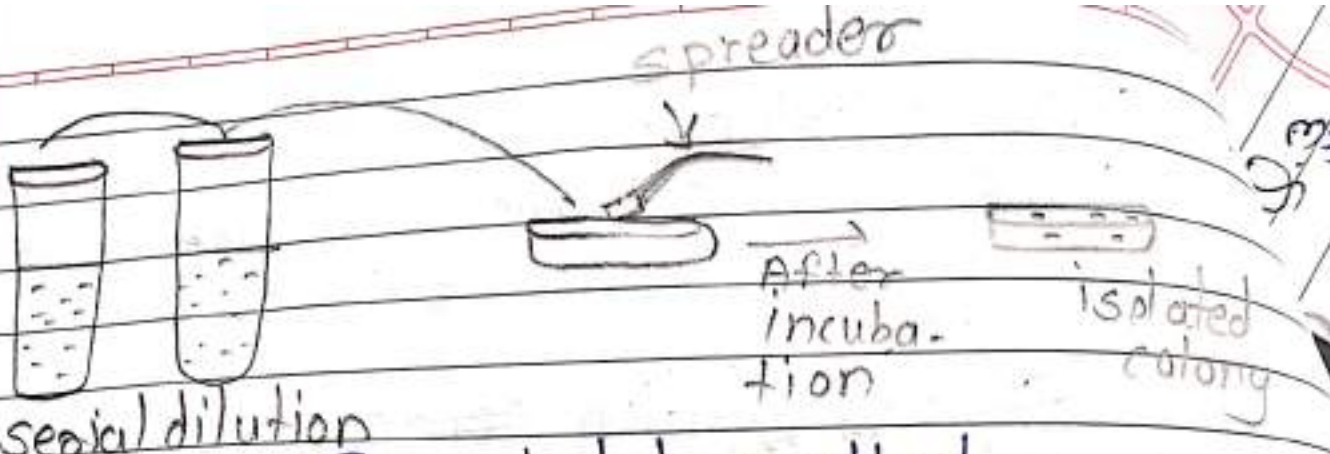
4) Radiant method.
In this method, a loopful suspension streaking ~~on~~ the horizontal lines on surfaces of agar medium, The horizontal lines are cuting by drawn ventrial lines like radiant manner.



Radiant method.

2) Seaial dilution:-
1) When any organisms is predomiant in mix culture, It canbe isolated by seially dilution.
2) Seially dilution ~~contain~~ use ~~sel~~ steile medium. It is use 10 tubes.
3) The last tube contain single organism.
4) The single organism in sufficant to initiant of organisms.
5) Joseph Lister, first time developed the method of isolated the single bacteria by ~~Seaial~~ dilution.
6) Seaial dilution is first step of ~~str~~ Spread plate technique and pore plate technique.

3) Spread plate technique.
1) It is alterneting method ~~of~~ to obtain pure culture in mix flora.
2) In this method, first the suspension of mix flora is serially dilutated by using steile distilled water.
3) Due to ~~steri st~~ seaial dilution, last few tubes contain may be few cells/ml.
4) The dilutated suspension, ~~s~~ transfer aseptically on the surface of agar medium and it is spread by using spreader.
5) After proper incubation, one can get well isolated coloney are foam.



Spread plate method.

2) Pore plate technique.

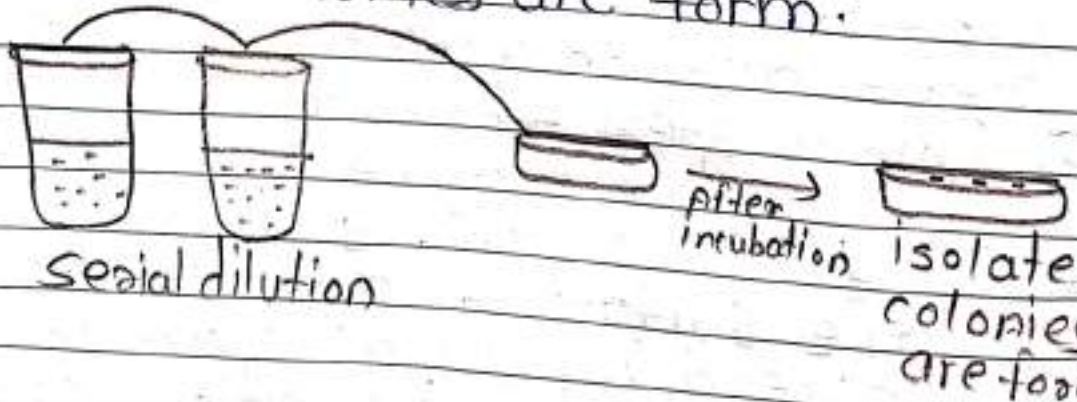
1) This method similar to the spread plate method.

2) first the suspension of mixed cultu is serially dilutated by using steaile distill water.

3) Due to serial dilution, last few tubes maybe contains few cells/ml.

4) The diluted suspension, transfer aseptically on the large tube and also pore in steaile petridish aseptically and allow to solidify.

5) After proper incubation, one can get isolated colonies are form.



4

Q.3 Short answer.

ii) Classification of micro-organisms with respect to oxygen requirment

→ i) Strictly aerobic microorganisms

1) The organisms can not grow in absence of ~~micro~~ oxygen.
2) They enzyme system trasfer hydrogen in ~~respiration~~ molecular oxygen in respiration
3) They use oxygen act as ~~finally~~ hydrogen acceptor
4) They carry out complete oxidation of food to CO_2 and water.

ii) facultative anaerobic microorganisms.

1) Those organisms grow in aerobic as well as anaerobic condition.
2) They enzyme system work in both condition.
3) But they better grow in aerobic condition because they carry out ~~oxi~~ complete oxidation of food and obtain more enery.
4) while, anaerobic condition they obtain less enery by incomplete oxidation of food.

iii) Strictly anaerobic microorganisms

1) Those organisms grow in absence of free oxygen.
2) Oxygen is toxic for these micro organisms
3) because i) some their enzymes inactivated in presence of free oxygen.

ii) They enzyme system can not transfer hydron in presence of oxygen.

4)

iv) Micro-aerophillic microorganism.

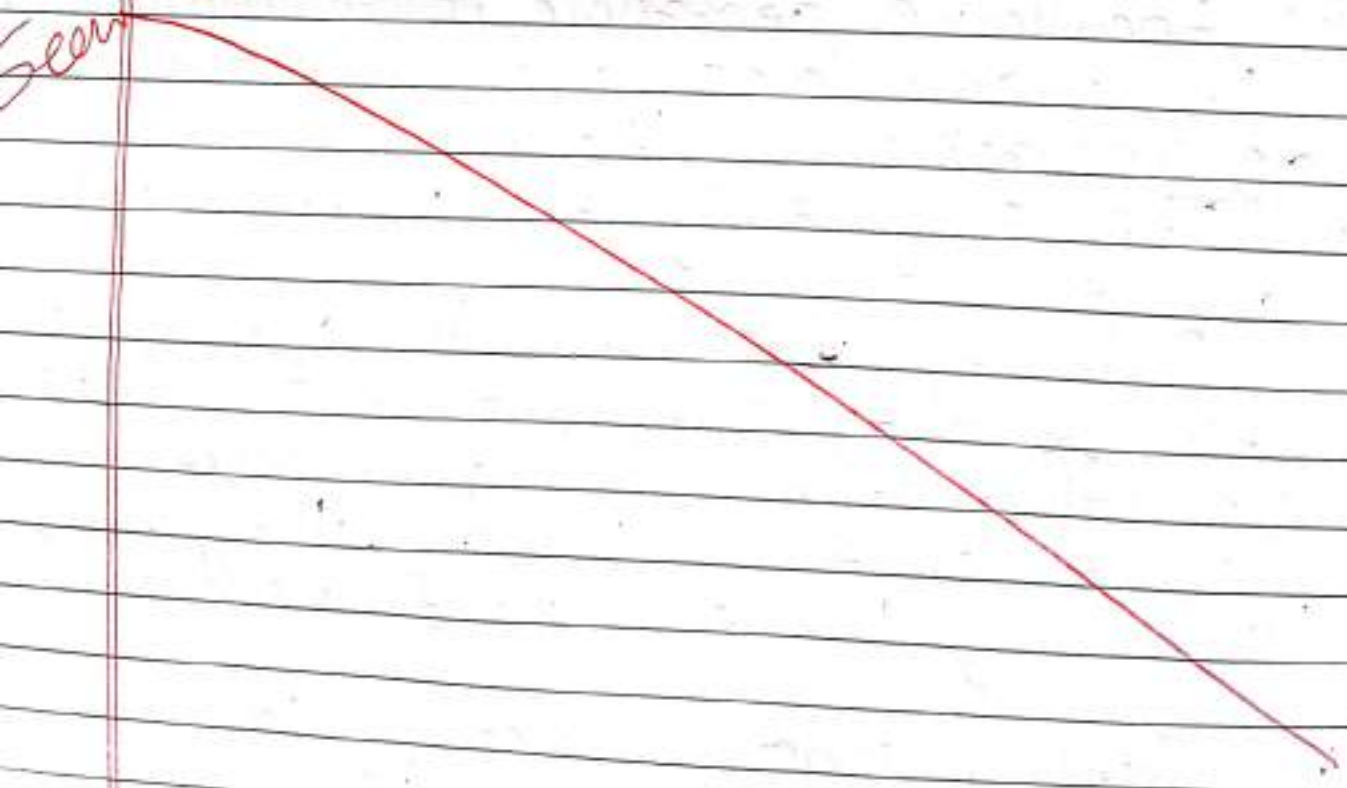
1) Those organisms grow in presence of low level of oxygen.

2) They grow in 2-10% oxygen level.

3) In high oxygen level, they enzyme system cannot be weak.

4) In low level of oxygen, they functional.

4



"Dissemination of Education for Knowledge, Science and Culture"

-Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR (AN EMPOWERED AUTONOMOUS INSTITUTION)

Department of Microbiology (UG)

Academic Year 2024-2025

Unit Test Attendance for BSc I

Date: 25/01/2025

Sr.no	Name of the student	Roll no.	Signature
1.	Ambale Riya Sunil	7469	Rambale
2.	Ambale Siddhi Yuvraj	7470	Ambale
3.	Balugade Vaishnavi Shahaji	7471	vbalugade
4.	Bele Surbhi Vishal	7472	Ab
5.	Chile Sanket Dattatray	7474	
6.	Chougule Sanika Tanaji	7475	
7.	Dalavi Trailokya Nitin	7476	
8.	Deshmukh Sanskruti Tanaji	7477	Deshmukh
9.	Ghosarawade Arati Ramachandra	7478	Ab
10.	Gutte Tukaram Dattatrey	7479	
11.	Jadhav Parth Suhas	7480	Ab
12.	Jagtap Anjali Shamrao	7481	Ab
13.	Jamadar Saba Mirasahab	7482	Ab
14.	Jamadar Sadiya Ibrahim	7483	Ab
15.	Kamble Antara Shesherao	7484	Akamble
16.	Kamble Sharwari Bajirao	7485	Ab
17.	Khot Vaishnavi Rajaram	7486	
18.	Kole Rajnandini Balasaheb	7487	
19.	Korane Sakshi Bhaskar	7488	Skorane
20.	Kulkarni Pratiksha Prashant	7489	Pkulkarni

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964

21.	Kumbhar Priyanka Dipak	7490	
22.	Kumbhar Samiksha Sanjay	7491	Ab
23.	Mali Tanuja Ajit	7492	
24.	Mole Nikita Tanaji	7493	Ab
25.	More Siya Kailas	7494	
26.	Nadaf Asiya Dastgir	7495	Ab
27.	Nadaf Pinjari Tasneem Bhola	7496	
28.	Parit Haripriya Amar	7498	Ab
29.	Parit Priti Anil	7499	
30.	Patil Anuradha Rajaram	7500	Ab
31.	Patil Jyoti Suresh	7501	
32.	Patil Raju Tanaji	7502	Ab
33.	Patil Riya Uttam	7503	
34.	Patil Rutuja Ravsaheb	7504	Ab
35.	Patil Saloni Gajkumar	7505	Ab
36.	Patil Sanjivani Vishnu	7506	Ab
37.	Patil Shreya Sunil	7507	
38.	Patil Shubhangi Uattam	7508	Ab
39.	Patil Unmesh Yashwant	7509	
40.	Patil Vaishnavi Dipak	7510	
41.	Pendhari Simran Mahamad	7511	Ab
42.	Pol Gunjan Vijay	7512	
43.	Raul Gauri Pramod	7513	G.P.Raul.
44.	Sabale Aditi Akaram	7514	A.A.Sabale.
45.	Shinde Samruddhi Vijay	7515	S.V.Shinde
46.	Sutar Shweta Prabhakar	7516	Ab
47.	Vhanmane Pranali Mhalappa	7518	
48.	Bhoje Adesh Chandrakant	7519	
49.	Dalvi Janhvi Ananda	7520	Ab
50.	Gurav Varsha Tanaji	7521	
51.	Khot Nikita Tanaji	7522	
52.	Koli Divya Dilip	7523	
53.	Salunke Vaishnavi Ranjeet	7524	Ab
54.	Singh Badal Kamalendra	7525	

55.	Thanekar Sanika Jotiram	7527	S.J. Thanekar
56.	Vasagade Shreya Jinendra	7528	S.J. Vasagade

Teacher Incharge

Ms. S. S. Shaikh Shaikh

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous)
ESTD JUNE 1964

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

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR

(AN EMPOWERED AUTONOMOUS INSTITUTION)

Department of Microbiology (UG)

Academic Year 2024-2025

Result Analysis for Unit Test of Bsc I

Date -27/01/2025

Sr.no	Name of the student	Roll no.	Marks
1.	Ambale Riya Sunil	7469	15
2.	Ambale Siddhi Yuvraj	7470	11
3.	Balugade Vaishnavi Shahaji	7471	14
4.	Bele Surbhi Vishal	7472	Ab
5.	Chile Sanket Dattatray	7474	03
6.	Chougule Sanika Tanaji	7475	11
7.	Dalavi Trailokya Nitin	7476	17
8.	Deshmukh Sanskruti Tanaji	7477	15
9.	Ghosarawade Arati Ramachan	7478	Ab
10.	Gutte Tukaram Dattatrey	7479	17
11.	Jadhav Parth Suhas	7480	Ab
12.	Jagtap Anjali Shamrao	7481	Ab
13.	Jamadar Saba Mirasahab	7482	Ab
14.	Jamadar Sadiya Ibrahim	7483	Ab
15.	Kamble Antara Shesherao	7484	18
16.	Kamble Sharwari Bajirao	7485	Ab
17.	Khot Vaishnavi Rajaram	7486	13
18.	Kole Rajnandini Balasaheb	7487	13

19.	Korane Sakshi Bhaskar	7488	07
20.	Kulkarni Pratiksha Prashant	7489	13
21.	Kumbhar Priyanka Dipak	7490	10
22.	Kumbhar Samiksha Sanjay	7491	Ab
23.	Mali Tanuja Ajit	7492	13
24.	Mole Nikita Tanaji	7493	Ab
25.	More Siya Kailas	7494	13
26.	Nadaf Asiya Dastgir	7495	Ab
27.	Nadaf Pinjari Tasneem Bhola	7496	09
28.	Palkar Vaishnavi Prakash	7497	Ab
29.	Parit Haripriya Amar	7498	Ab
30.	Parit Priti Anil	7499	10
31.	Patil Anuradha Rajaram	7500	Ad. Cancel
32.	Patil Jyoti Suresh	7501	11
33.	Patil Raju Tanaji	7502	Ab
34.	Patil Riya Uttam	7503	06
35.	Patil Rutuja Ravsaheb	7504	Ab
36.	Patil Saloni Gajkumar	7505	Ab
37.	Patil Sanjivani Vishnu	7506	Ab
38.	Patil Shreya Sunil	7507	12
39.	Patil Shubhangi Uattam	7508	Ab Cancel
40.	Patil Unmesh Yashwant	7509	07
41.	Patil Vaishnavi Dipak	7510	06
42.	Pendhari Simran Mahamad	7511	Ab
43.	Pol Gunjan Vijay	7512	10
44.	Raul Gauri Pramod	7513	05
45.	Sabale Aditi Akaram	7514	09
46.	Shinde Samruddhi Vijay	7515	19
47.	Sutar Shweta Prabhakar	7516	Ab
48.	Vhanmane Pranali Mhalappa	7518	18

49.	Bhoje Adesh Chandrakant	7519	17
50.	Dalvi Janhvi Ananda	7520	Ab
51.	GuravVarshaTanaji	7521	12
52.	Khot Nikita Tanaji	7522	14
53.	Koli Divya Dilip	7523	05
54.	SalunkeVaishnavi Ranjeet	7524	Ab
55.	Singh Badal Kamalendra	7525	06
56.	SontakkeVaishnavi Vinayak	7526	Ad. Cancel
57.	Thanekar Sanika Jotiram	7527	07
58.	Vasagade Shreya Jinendra	7528	06

Teacher Incharge

Shaikh

Ms. S. S. Shaikh

"Dissemination of Education for Knowledge, Science and Culture"

-ShikshanmaharshiDr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR(EMPOWERED AUTONOMOUS)

Department of Microbiology

Academic Year 2024-2025

Notice for BSc III

Date:13/09/2024

All the students of B.Sc. III are hereby informed that their **Unit Test** has been scheduled on 19/09/2024, Thursday.Syllabus for unit test will be Industrial Microbiology Unit II. Hence all students are instructed to prepare accordingly. Attendance for test is compulsory to everyone. All students should remain present for test on time.

Sr. no.	Title of Paper	Date	Marks	Topic
1.	Paper XI DSE:1010 E3 Industrial Microbiology Unit II	19/09/2024	20	1. Industrial Production of-(a. Amylase, b. Grape Wine c. Penicillin d. Citric acid e. SCP)

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

Dr.G.K.Sontakke
HEAD
DEPARTMENT OF MICROBIOLOGY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

"Dissemination of Education for Knowledge, Science and Culture"

-ShikshanmaharshiDr. Bapuji Salunkhe

Shri Swami VivekanandShikshan Sanstha's

VIVEKANANDCOLLEGE KOLHAPUR(EMPOWEREDAUTONOMOUS)

Department of Microbiology

Academic Year 2024-2025

BSc III

Question Paper for Unit Test

Instructions: 1) All the questions are compulsory.

2) Figures to the right indicate full marks.

3) Draw neat labelled diagrams wherever necessary.

Time: 1 hour Total Marks: 20

Unit I Industrial Production of -

Que. 1 Select correct alternative. (4)

i) Bacteria have more than _____ proteins in them.

a)80% b)70% c)75% d)60%

ii)Earlier _____ _____ was used in the penicillin production but it provided low yield of penicillin.

a) *Pencilliumchrysogenum* b)*Aspergillus niger* c)*Streptomyces* d)*Penicillium notatum*

iii) Precursor for penicllin G is _____.

a)Hydroxy phenylacetic acidb)Phenoxy acetic acid c)Phenyl acetic acid d)None of the above

iv)Normally a reading of _____ balling is given by Grapes at proper maturity.

a) 25-30% b)10-12% c)21-23% d)24%

Que. 2 Attempt One. (8)

1.Describe in detail Industrial production of Amylase Enzyme.

Que. 3 Attempt two. (8)

i) Fermentation of Citric Acid

ii) Spoilage or defects in Wine

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964 (Empowered Autonomous)

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

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur (Empowered Autonomous)

UG Department of Microbiology

Academic Year 2024-2025

BSc-III

Attendance For Test **Date: 19/09/2024**

Teacher Name: S. S. Shaikh

Sr. No.	Name of the Student	Roll No.	Signature
1	Bhosle Vedika Sudhir	8337	
2	Chavan Sanika Pradeep	8388	
3	Chougale Sanika Vishnu	8389	
4	Dinde Ankita Rangrao	8390	
5	Gaikwad Divya Sanjay	8391	
6	Gaikwad Nikita Nandkumar	8392	
7	Gurav Mansi Sunil	8393	
8	Hajare Aishwarya Ganesh	8394	
9	Hardikar Yogi Ashutosh	8395	Ab
10	Jadhav Karan Dipak	8396	
11	Jadhav Vinayak Sanjay	8397	
12	Jasud Rutuja Tanaji	8398	
13	Jevrani Simran Anil	8399	
14	Kachare Ishwari Pradeep	8400	
15	Kamat Sanskruti Santosh	8401	
16	Khanvilkar Anjali Hemant	8402	Ab
17	Kharade Sanchit Sachin	8403	
18	Khot Vaishnavi Jitendra	8404	
19	Korane Harshad Mahesh	8405	
20	Kulkarni Sai Vivek	8406	Ab
21	Lad Anjali Vijay	8407	
22	Ligade Smeet Sunil	8408	
23	Majgavkar Sanika Sagar	8409	
24	Mali Prachi Sanjay	8410	
25	Mane Rohan Baban	8411	
26	Mujawar Aabida Altaf	8412	
27	Parulekar Diksha Devdatta	8413	

ESTD JUNE 1964

28	Patil Avantika Arun	8414	Ab
29	Patil Kartigraj Bhagwan	8415	
30	Patil Sammed Annaso	8416	
31	Patil Sharwari Yuvraj	8417	
32	Patil Suhani Sadashiv	8418	
33	Powar Diya Kiran	8419	
34	Prabhu Savali Shivaji	8420	
35	Shaikh Rijwan Firoj	8421	
36	Shelke Yogesh Balu	8422	Ab
37	Shewale Prithviraj Subhash	8423	
38	Sonule Sushant Krishnat	8424	
39	Sutar Jayshri Krishnat	8425	
40	Todkar Nirjara Shivaji	8426	
41	Wadkar Samrudhi Dhanaji	8427	
42	Yadav Sushant Harishchandra	8428	
43	Yatam Ashutosh Bhagvan	8429	
44	Harshe Arpita Ashok	8437	

Teacher Incharge

Ms. S. S. Shaikh 19/09/2024

VIVEKANAND COLLEGE KOLHAPUR (Autonomous) ESTD JUNE 1964

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

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur (Empowered Autonomous)

UG Department of Microbiology

Academic Year 2024-2025

BSc-III

Result Analysis For Unit Test **Date: 20/09/2024**

Teacher Name: S. S. Shaikh

Sr. No.	Name of the Student	Roll No.	Marks
1	Bhosle Vedika Sudhir	8337	07
2	Chavan Sanika Pradeep	8388	04
3	Chougale Sanika Vishnu	8389	13
4	Dinde Ankita Rangrao	8390	11
5	Gaikwad Divya Sanjay	8391	08
6	Gaikwad Nikita Nandkumar	8392	08
7	Gurav Mansi Sunil	8393	12
8	Hajare Aishwarya Ganesh	8394	13
9	Hardikar Yogi Ashutosh	8395	–
10	Jadhav Karan Dipak	8396	04
11	Jadhav Vinayak Sanjay	8397	13
12	Jasud Rutuja Tanaji	8398	07
13	Jevrani Simran Anil	8399	06
14	Kachare Ishwari Pradeep	8400	09
15	Kamat Sanskruti Santosh	8401	11
16	Khanvilkar Anjali Hemant	8402	–
17	Kharade Sanchit Sachin	8403	12
18	Khot Vaishnavi Jitendra	8404	09
19	Korane Harshad Mahesh	8405	10
20	Kulkarni Sai Vivek	8406	–
21	Lad Anjali Vijay	8407	07
22	Ligade Smeet Sunil	8408	09
23	Majgavkar Sanika Sagar	8409	08
24	Mali Prachi Sanjay	8410	12
25	Mane Rohan Baban	8411	12
26	Mujawar Aabida Altaf	8412	14
27	Parulekar Diksha Devdatta	8413	11

VIVEKANAND COLLEGE KOLHAPUR ESTD JUNE 1964

28	Patil Avantika Arun	8414	–
29	Patil Kartigraj Bhagwan	8415	13
30	Patil Sammed Annaso	8416	08
31	Patil Sharwari Yuvraj	8417	07
32	Patil Suhani Sadashiv	8418	10
33	Powar Diya Kiran	8419	07
34	Prabhu Savali Shivaji	8420	07
35	Shaikh Rijwan Firoj	8421	06
36	Shelke Yogesh Balu	8422	–
37	Shewale Prithviraj Subhash	8423	08
38	Sonule Sushant Krishnat	8424	16
39	Sutar Jayshri Krishnat	8425	08
40	Todkar Nirjara Shivaji	8426	02
41	Wadkar Samrudhi Dhanaji	8427	15
42	Yadav Sushant Harishchandra	8428	04
43	Yatam Ashutosh Bhagvan	8429	04
44	Harshe Arpita Ashok	8437	06

Teacher Incharge

Ms. S. S. Shaikh Shaikh 21/09/2024

VIVEKANAND COLLEGE ESTD JUNE 1964

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

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur (An Empowered Autonomous Institute)

Department of Microbiology (UG)

Academic Year 2024-2025

Unit test B.Sc. I Sem II

Notice

Date – 07/02/2025

All students of B.Sc. I are hereby informed that **Unit Test** has been scheduled on **10/02/2025, Monday at 12.40 pm to 1.30 pm**. Attendance for test is compulsory to everyone. All students should be present for test on time.

Date	Topic	Time
10/02/2025	Amino acid Structure & classification, Structural levels of protein	12.40 pm to 1.30 pm

Dr. T.C.Gaupale

HC HEAD
DEPARTMENT OF MICROBIOLOGY
VIVEKANAND COLLEGE,KOLHAPUR
(EMPOWERED AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

Vivekanand College, Kolhapur (An Empowered Autonomous Institute)
Department of Microbiology (UG)
Academic Year 2024-2025
Unit test B.Sc. I Sem II

Date – 10/02/2025 **Marks - 20**

Q.1. Select correct alternative from given alternative & rewrite the sentence. **(8)**

1._____ are the polymers of amino acids.

a. Carbohydrates b. Lipids c. Proteins d. All of above

2._____ amino acids lack a chiral carbon.

a. Glycine b. Tyrosine c. Lysin d. Proline

3.The first amino acid that gets incorporated in polypeptide chain during protein synthesis is _____.

a. Glycine b. Methionine c. Tyrosine d. Lysin

4.Oligopeptides have _____ amino acid residue.

a. 1-2 b. 2-3 c. 12-20 d. More than 20

5._____ structure of protein is referred as it's confirmation.

a. 1^0 b. 2^0 c. 3^0 d. 4^0

6._____ interaction is absent is absent in tertiary structure of proteins.

a. Van-der-waal b. Electrostatic c. Hydrophobic d. Covalent

7.Amino acids are joined together by _____ bond.

a. Glycosidic b. Hydrogen c. Covalent d. Peptide

8._____ protein is an example of quaternary structure.

a. Hb b. Keratin c. Flagellin d. Pilin

Q.2. Long Answer question. **(8)**

Write an essay on secondary structure of amino acids.

Q.3. Write a Short note on. (Any One) **(4)**

1.Non polar uncharged amino acids.

2.Structure & properties of amino acids.

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

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur (An Empowered Autonomous Institute)

Department of Microbiology (UG)

Academic Year 2024-25

B. Sc I Unit Test 1

Date: 10/02/25 **Time: 12:45pm – 1:30 pm**

Sr. No.	Name of Student	Roll no.	Sign	Marks (out of 20 marks)
1	Ambale Riya Sunil	7469	Ambale	11
2	Ambale Siddhi Yuvraj	7470	Ambale	8
3	Balugade Vaishnavi Shahaji	7471	Balugade	8
4	Bele Surbhi Vishal	7472	Ab	Ab
5	Benake Madhura Shankar	7473	Ab	Ab
6	Chile Sanket Dattatray	7474	Ab	Ab
7	Chougule Sanika Tanaji	7475	[signature]	11
8	Dalavi Trailokya Nitin	7476	[signature]	9
9	Deshmukh Sanskruti Tanaji	7477	Ab	14
10	Ghosarawade Arati Ramachandra	7478	[signature]	13
11	Gutte Tukaram Dattatrey	7479	[signature]	13
12	Jadhav Parth Suhas	7480	Ab	Ab
13	Jagtap Anjali Shamrao	7481	Ab	Ab
14	Jamadar Saba Mirsahab	7482	Ab	Ab
15	Jamadar Sadiya Ibrahim	7483	[signature]	9
16	Kamble Antara Shesherao	7484	Akamble	11
17	Kambale ShawariBajorao	7485	Ab	Ab
18	Khot Vaishnavi Rajaram	7486	[signature]	9
19	Kole Rajanandini Balasaheb	7487	Ab	Ab
20	Korane Sakshi Bhaskar	7488	Skorane	8
20	Kulkarni Pratiksha Prashant	7489	Kulkarni	6
21	Kumbhar Priyanka Dipak	7490	Ab	Ab
22	Kumbhar Samiksha Sanjay	7491	Ab	5
23	Mali Tanuja Ajit	7492	[signature]	5
24	Mole Nikita Tanaji	7493	Nmole	12
25	More Siya Kailas	7494	[signature]	7
26	Nadaf Asiya Dastgir	7495	Asiya	8
27	Nadaf Pinjari Tasneem Bhola	7496	TB. Nadaf.	10
28	Palkar Vaishnavi Prakash	7497	Ab	Ab

29	Parit Haripriya Amar	7498	Haparit	15
30	Parit Priti Anil	7499	PAparit	10
31	Patil Anuradha Rajaram	7500	Ab	Ab
32	Patil Jyoti Suresh	7501	Jyoti	9
33	Patil Raju Tanaji	7502	Ab	Ab
34	Patil Riya Uttam	7503	Patil	7
35	Patil Rutuja Ravsaheb	7504	Ab	Ab
36	Patil Saloni Gajkumar	7505	Sapil	10
37	Patil Sanjivani Vishnu	7506	Patil	8
38	Patil Shreya Sunil	7507	Patil	10
40	Patil Shubhangi Uattam	7508	Ab	Ab
41	Patil Umesh Yashwant	7509	Ab	Ab
42	Patil Vaishnavi Dipak	7510	Patil	8
43	Pendhari Simran Mahamad	7511	[illegible]	7
44	Pol Gunjan Vijay	7512	Ab	Ab
45	Raul Gauri Pramod	7513	G.P.Raul.	3
46	Sabale Aaditi Akaram	7514	A.A.Sabale	7
47	Shinde Samruddhi Vijay	7515	S.V.Shinde	15
48	Sutar Shweta Prabhakar	7516	[illegible]	11
49	Thombare Shruti Vinayak	7517	Ab	Ab
50	Vhanmane Pranali Mhalappa	7518	Ab	Ab
51	Bhoje Adesh Chandrakant	7519	[illegible]	14
52	Dalvi Janhvi Ananda	7520	Ab	Ab
53	Gurav Varsha Tanaji	7521	Vgurav.	5
54	Khot Nikita Tanaji	7522	[illegible]	14
55	Koli Divya Dilip	7523	[illegible]	9
56	Salunke Vaishnavi Ranjeet	7524	Ab	Ab
57	Singh Badal Kamalendra	7525	Badal	7
58	Sontakke Vaishnavi Vinayak	7526	Ab	Ab
59	Thanekar Sanika Joytiram	7527	S.J.Thanekar	7
60	Vasagade Shreya Jinendra	7528	Svasagade	3

HC HEAD
DEPARTMENT OF MICROBIOLOGY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR
ESTD JUNE 1964
Empowered Autonomous

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

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur (An Empowered Autonomous Institute)

Department of Microbiology (UG)

Academic Year 2024-2025

B.Sc I Sem II Unit Test -1

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

Dissemination of Education for Knowledge, Science and Culture"

-Shikshanmaharshi Dr. Bapuji Salunkhe

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR (AN EMPOWERED AUTONOMOUS INSTITUTE)

Department of Microbiology

Academic Year 2024-2025

Notice

Date – 21/01/2025

All students of B.Sc. III are hereby informed that unit test of **Agricultural Microbiology** has been schedule on **Saturday ,25 January 2025 at 11.50 a.m.** in room no.415. Make sure to be present on time.

Syllabus -

Topic	Time	Date
1.Physical & chemical characters of soil 2.Microbial interactions 3.Nitrogen cycle 4.Phosphorous cycle.	11.50-12. 40a.m	25/01/2025

Dr.T.C.Gaupale

I/C HEAD
DEPARTMENT OF MICROBIOLOGY
VIVEKANAND COLLEGE,KOLHAPUR
(EMPOWERED AUTONOMOUS)

VIVEKANAND COLLEGE KOLHAPUR
ESTD JUNE 1964
(Empowered Autonomous)

Vivekanand College, Kolhapur (An Empowered Autonomous Institute)

Department of Microbiology (UG)

Academic Year 2024-2025

Unit test B.Sc. III Sem VI

Date – 25/01/2025 **Marks - 10**

Q. Write a short note on. (Any 2) **(10)**

1. Chemical properties of soil
2. Phosphorous cycle
3. Mutualism

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur (Empowered Autonomous)

Department of Microbiology

Academic Year 2024-25

B. Sc. III Unit Test

Attendance

Date – 25/01/2025

Marks =10

Sr. No	Student name	Roll No.	Sign	Marks
1	Bhosle Vedika Sudhir	8387	Vedika	03
2	Chavan Sanika Pradeep	8388	Ab	Ab
3	Chougale Sanika Vishnu	8389	Sanika	09
4	Dinde Ankita Rangrao	8390	Ankita	06
5	Gaikwad Divya Sanjay	8391	Divya	08
6	Gaikwad Nikita Nandkumar	8392	Ab	Ab
7	Gurav Mansi Sunil	8393	Mansi	07
8	Hajare Aishwarya Ganesh	8394	Aishwarya	02
9	Hardikar Yogi Ashutosh	8395	Ab	Ab
10	Jadhav Karan Dipak	8396	Karan	05
11	Jadhav Vinayak Sanjay	8397	Vinayak	06
12	Jasud Rutuja Tanaji	8398	Rutuja	02
13	Jevrani Simran Anil	8399	Simran	Ab 03
14	Kachare Ishwari Pradeep	8400	Ab	Ab
15	Kamat Sanskruti Santosh	8401	Kamat	02
16	Khanvilkar Anjali Hemant	8402	Anjali	02
17	Kharade Sanchit Sachin	8403	Kharade	05
18	Khot Vaishnavi Jitendra	8404	Khot	06
19	Korane Harshad Mahesh	8405	Ab	Ab

20	Kulkarni Sai Vivek	8406	Ab	Ab
21	Lad Anjali Vijay	8407	Anjali	03
22	Ligade Smeet Sunil	8408	Ab	Ab
23	Majgavkar Sanika Sagar	8409	Sanika	04
24	Mali Prachi Sanjay	8410	AB	AB
25	Mane Rohan Baban	8411	Rohan	03
26	Mujawar Aabida Altaf	8412	Aabida	04
27	Parulekar Diksha Devdatta	8413	Parulekar	08
28	Patil Avantika Arun	8414	Avantika	03
29	Patil Kartikraj Bhagwan	8415	KPatil	05
30	Patil Sammed Annaso	8416	SPatil	02
31	Patil Sharwari Yuvraj	8417	Shatil	03
32	Patil Suhani Sadashiv	8418	SPatil	04
33	Powar Diya Kiran	8419	Ab	Ab
34	Prabhu Savali Shivaji	8420	Prabhu	03
35	Shaikh Rizwan firoj	8421	Shaikh	05
36	Shelke Yogesh Balu	8422	Ab	Ab
37	Shewale Prithviraj Subhash	8423	Shewale	06
38	Sonule Sushant Krishnat	8424	Sonule	07
39	Sutar Jayshri Krishnat	8425	Sutar	04
40	Todkar Nirjara Shivaji	8426	Todkar	00
41	Wadkar Samrudhi Dhanaji	8427	Wadkar	07
42	Yadav Sushant Harishchandra	8428	Yadav	01
43	Yatam Ashutosh Bhagvan	8429	Ab	Ab
44	Harshe Arpita		Ab	Ab
45				

VIVEKANAND COLLEGE KOLHAPUR (Empowered Autonomous) ESTD JUNE 1964

HEAD
DEPARTMENT OF MICROBIOLOGY
VIVEKANAND COLLEGE,KOLHAPUR
(EMPOWERED AUTONOMOUS)

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

Shri Swami Vivekanand Shikshan Sanstha's

Vivekanand College, Kolhapur (An Empowered Autonomous Institute)

Department of Microbiology (UG)

Academic Year 2024-2025

B.Sc-III Sem VI Unit Test -1

VIVEKANAND COLLEGE KOLHAPUR (An Empowered Autonomous) ESTD JUNE 1964