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VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)

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FOR FACULTY..

FACULTY DEVELOPMENT AND STUDENT MENTORING

Get Started





PREV NEXT

Welcome to Vivekanand College, Kolhapur

Vivekanand College, Kolhapur which was established in 1964 is known as one of the best quality colleges in Maharashtra. The U.G.C. granted autonomy to this college from the academic year 2018-19. About 8000 students are enrolled every year for various programmes. Besides the conventional programmes like B.A., B.Com.and B.Sc., the college offers the professional programmes like B.B.A., B.C.A., B.C.S., B.Sc. (Biotechnology) ,B.Sc. Microbiology, B.Voc. , Community College and M. B. A. The college also provides opportunity to undertake degrees like B.A.,B.Com.,B.Sc. , B.Lib.,M.Lib. and M.B.A. of YCMOU, Nashik

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Home Page after login: Select B.Sc. Biotechnology & M.Sc. Biotechnology

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PROGRAMS


- BA
- B.Sc.

Programs



Bachelor of Arts (B.A)

Program : BA



B.Sc Biotechnology
M.Sc Biotechnology

Program : B.Sc.

Select Biotechnology

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SUBJECT

All Subject

Biotechnology

Programs / B.Sc.

Subject : - All Subject List



Details

Subject : Biotechnology

Select Course Name : "Instrumentation Course in Life Sciences"

Add On Course Department of Biotechnology

LMS VIVEKANAND COLLEGE, KOLHAPUR (AUTONOMOUS)

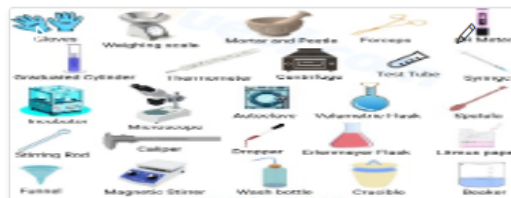
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COURSES

☐ All Course

"Instrumentation Course in
Life Sciences"

[B.Sc.](#) / [Biotechnology](#) / Courses



Course Name : "Instrumentation Course in Life Sciences"

Teacher : Ashutosh Upadhye

Web interface for Students


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COURSES

- Introduction
- General Instrumentation: Principle, Working and Application
- Instrumentation for Biochemistry: Principle, Working and Applications
- Instrumentation for Microbiology: Principles, Working and Applications
- Instrumentation for Molecular Biology: Principles, Working and Applications
- Instrumentation for Plant Tissue Culture: Principles, Working and Applications
- Practicals


B.Sc. / Biotechnology / "Instrumentation Course in Life Sciences" / Modules



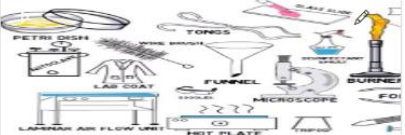
Module Name : Introduction




Module Name : General Instrumentation: Principle, Working and Application



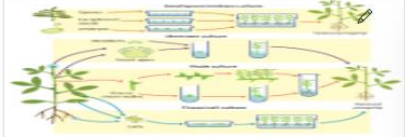
Module Name : Instrumentation for Biochemistry: Principle, Working and Applications




Module Name : Instrumentation for Microbiology: Principles, Working and Applications



Module Name : Instrumentation for Molecular Biology: Principles, Working and Applications



Module Name : Instrumentation for Plant Tissue Culture: Principles, Working and Applications



Module Name : Practicals

Exam Center

Online Exam (MCQ)
Test Name - Add on Course examination 2023 - 2024
Marks - 30
[Take Test](#)
Test Report
[PDF](#) [EXCEL](#)

Online Exam (MCQ)
Test Name - Add on course practical exam
Marks - 20
[Take Test](#)
Test Report
[PDF](#) [EXCEL](#)

Module 1 Introduction

Module 2 General Instrumentation

Module 3 Instrumentation for Biochemistry

Module 4 Instrumentation for Microbiology

Module 5 Instrumentation for Molecular Biology

Module 6 Instrumentation for Plant Tissue Culture

Module 7 Practical

Theory Exam

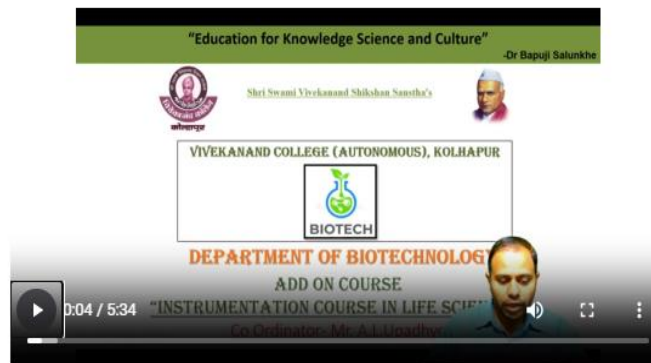
Practical Exam

Module 1 Introduction

[B.Sc.](#) / [Biotechnology](#) / [Introduction to Addon Course "Instrumentation course in Life Sciences"](#) / Module Details



1. Introduction to Addon Course "Instrumentation course in Life Sciences"



Topic Name : Introduction to Addon Course "Instrumentation course in Life Sciences"

Topic Details : Department of Biotechnology, Vivekanand College (Empowered Autonomous), Kolhapur, is conducting the Addon Course "Instrumentation course in Life Sciences" for all the students of life sciences. The frequency of this course is twice a year and the duration of this course is 3 months. All students should register online course for this course The Course Co Ordinator is Mr. A.L.Upadhye Asst/Prof Dept of Biotechnology. Please refer to the introduction video for syllabus, practical and other details regarding the course details.

Module 2 General Instrumentation



- 1. Centrifuge
- 2. Colorimeter and Water Bath
- 3. pH Meter
- 4. Spectrophotometer and Autopipetter

Exam Center



🕒 No Test Available

Module 3 Instrumentation for Biochemistry

[B.Sc.](#) / [Biotechnology](#) / [Titrator](#) / Module Details



1. Titrator



2. BOD and COD



3. Chromatography



Exam Center



wait a moment....

Module 4 Instrumentation for Microbiology

[B.Sc.](#) / [Biotechnology](#) / [Fermenter and Replica Unit by: Mrs. Srushti .S. Patil](#) / Module Details



1 . Fermenter and Replica Unit by: Mrs. Srushti .S. Patil



2 . Immuno Assay Techniques: by Ms V.N.More



3 . Colony Counter by: Ms. Vinaya.N. More



4 . Autoclave



5 . Microscope



6 . Shaker Incubator



Exam Center



wait a moment...

Module 5 Instrumentation for Molecular Biology

[B.Sc.](#) / [Biotechnology](#) / [Agarose Gel Electrophoresis by Mr. Ashutosh Upadhye](#) / Module Details



1. Agarose Gel Electrophoresis by Mr. Ashutosh Upadhye



2. SDS-PAGE by Mr. Ashutosh Upadhye



3. Southern Blotting by: Mr. Ashutosh Upadhye



4. Western Blotting by: Mr. Ashutosh Upadhye



5. Electroblotting by Mr. Ashutosh Upadhye



6. Cryopreservation by: Ms Vaishnavi Kankekar



Exam Center



wait a moment....

Module 6 Instrumentation for Plant Tissue Culture

[B.Sc.](#) / [Biotechnology](#) / [Rotatory Shaker](#) / Module Details



1. Rotatory Shaker



2. Laminar Air Flow



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wait a moment...


Module 7 Practical


[B.Sc.](#) / [Biotechnology](#) / [Homogenization by Liquid Nitrogen](#) / Module Details




1. Homogenization by Liquid Nitrogen 

2. PCR 

3. Surface sterilization and Aseptic inoculation 


4. Digital Autoclave 

5. TLC and Paper chromatography 

6. Replica Plate Technique 

Exam Center



 wait a moment....

Dash Board for Teachers

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13
Study Material (PDF,PPT etc.)

Course Approval Request List


[List](#)

Student List Report

Subject
----Select----

Course
----Select----

[Show Report](#)

































Students Enrolled

Sr.No	Student Name	Faculty	College Name	Class	Date wiseDetails	Module wiseDetails
1	MAGDUM HARSHAVARDHAN ANNASO					
2	PATIL SANIKA YUVRAJ					
3	YADAV JYOTI DEEPAK					
4	Aman Pralhad Mane	Bsc	VCK	3rd		
5	Snehal Yalgonda Patil	Science	Vck	3rd		
6	Aashish Tukaram Patil	Science	Vivekanand College (Empowered Autonomous), Kolhapur	B.Sc-Biotechnology Entitre-II		
7	Siddhi Dipak Belekar	science	vivekanand college (Empowered Autonomous),kolhapur	B.sc Biotechnology -I		
8	Harsh Viraj Patnekar	Science	Vivekananda college (empowered autonomous) Kolhapur	Bsc biotechnology entire 1		
9	Veena Nagnath Haveli	Science	Vivekanand College (empowered autonomous) , Kolhapur	B.Sc Biotechnology Entire - I		
10	Ziya Mohammad Shafik Pendhari	Science	Vivekananda College (Empowered Autonomous) Kolhapur	Bsc.Biotechnology(Optional)Fy		
11	Rutuja Shivanand Wali	Science	Vivekananda College (Empowered autonomous), Kolhapur	Bsc. Biotechnology (entire) 1		
12	Teertha Raj Kamat	Science	Vivekanand college (Empowered Autonomous) Kolhapur	B.sc Biotechnology [Entire] 2nd year		
13	Neha Ram Patil	Science	Vivekanand college (empowered autonomous) kolhapur	first year		
14	Shreeya Suresh Patil	Science	Vivekanand college (empowered autonomous)Kolhapur	BSc biotechnology entire II		
15	Kartikraj Bhagvan Patil	Science	Vivekanand College(Empowerd Autonomous), Kolhapur	Bsc Microbiology-II		
16	Yogesh Balu Shelke	Science	Vivekanand college (Empowerment Autonomous) Kolhapur.	B.sc Microbiology 2nd year		

17	Prema Mohan Patil	Science	Vivekananda College (Empowered autonomous) kolhapur	BSc.biotech entire-II		
18	Vinayak Sanjay Jadhav	Science	Vivekanand college empowered autonomous	B sc microbiology 2nd year		
19	Ashutosh Bhagwan Yatam	Science	Vivekanand college(Empowered Autonomous	B.sc.microbiology 2 nd year		
20	Tanuja Netaji Mhettar	Science	Vivekanand college kolhapur	1st year		
21	Maitreyi Manoj Salvi	Bsc Biotechnology	Vivekananda College Kolhapur	First Year		
22	Siddhi Sunil Tibile	Science	Vivekanand college (empowered Autonomous) Kolhapur	Bsc.Biotechnology Entire - III		
23	Harshvardhan Dhondiram Dabade	Science	Vivekanand college (Empowered Autonomous) Kolhapur	Bsc Biotechnology Entire 1		
24	Pranjal Parashuram Lohar	Science	Vivekanand college (Empowered Autonomous)kolhapur	BSC Biotechnology Entire III		
25	Srushti Suhas Patil	Science	Vivekanand College Kolhapur	Bsc Biotech (ENT)		
26	Vaishnavi Vasudev Patil	Science	Vivekananda college (Empowered Autonomous) Kolhapur	Bsc.Biotech entire I		
27	Arya Amol Patil	Science	Vivekanand College [Empowered Autonomous] kolhapur	Bsc biotech entire I		
28	Anushka Arvind Nikam	Science	Vivekanand College (Empowered Autonomous), Kolhapur	B.Sc Biotechnology (Entire) I		
29	Riya Surendra Yadav	Science	Vivekananda college (Empowered Autonomous) kolhapur	Bsc Biotechnology(Entire)I		
30	Sanmati Rajabhau Navghane	Science	Vivekanand college (empowered autonomous) kolhapur	Bsc Biotechnology entire		
31	Jyoti Deepak Yadav	Science	Vivekanand College Kolhapur (Empowered Autonomous)	B.Sc Biotechnology Entire-I		
32	Samiksha Chandrakant Sawant	Science	Vivekanand College (Empowered Autonomous) Kolhapur	Bsc Biotechnology entire -		
33	Swati Pravin Pawar	Science	Vivekanand college (empowered autonomous) Kolhapur	Bsc Biotechnology (entire)		
34	Shruti Sandip Kanekar	Science	Vivekanand College (Empowered Autonomous) Kolhapur	Bsc Biotech Entire		

35	Neha Ravindra Kadam	Science	Vivekanand college (Empowered Autonomous) Kolhapur	Bsc Biotechnology (Entire)-I		
36	Shraddha Bahubali Latthe	Science	Vivekanand college (Empowered Autonomous) Kolhapur	Bsc Biotechnology(Entire) I		
37	Sakshi Ratan Gaikwad	Science	Vivekanand college (Empowered Autonomous) Kolhapur	B.sc Biotechnology(Entire) Ie		
38	Rohan Baban Mane	Science	Vivekanand College Kolhapur(Empowered Autonomous)	B.Sc Microbiology II		
39	Sushant Krishnat Sonule	Science	Vivekanand College (Empowered Autonomous), Kolhapur	Bsc Microbiology-II		
40	Vinayak Sanjay Jadhav	Science	Vivekanand College (Empowered)autonomous Kolhapur	Bsc Microbiology-II		
41	Shraddha Dipak Nalawade	Science	Vivekanand college (Empowered Autonomous) kolhapur	Bsc.Biotechnology Entire I		
42	Pranav Bhauso Adanna	Science	Vivekanand college Kolhapur (Autonomous)	Bsc. II biotech(entire)		
43	Shreepad Baban Jadhav	Science	Vivekanand College Kolhapur	BSC 1st Biotechnology optional		
44	Sanika Yuvraj Patil	Science	Vivekanand college (empowered autonomous) Kolhapur	Bsc-1optional biotechnology		
45	Snehal Ananada Patil	Science	Vivekanand college kolhapur Empowerment Autonomous	Bsc 1st year Biotechnology optional		
46	Sushant Harishchandra Yadav	Science	Vivekanand (Autonomous) Kolhapur	Bsc Microbiolgy SY		
47	Nikhil Rajshekar Rajshekar	Bsc biotechnology enitre	Vivekanand college kolhapur	first year		
48	Vijay khandu Doiphode	Science	Vivekanand College (Empowered)	BSC Biotechnology-I		
49	sammed annaso patil	science	Vivekanand college (empowered) autonomous	BS.c SY		
50	Saniya Firozkhan Pathan	Science	Vivekanand College (Empowered Autonomous)	B.Sc-Biotechnology Entire-I		
51	Ganesh Annaso Kumbhar	Science	Vivekanand College (Empowered Autonomous), Kolhapur	B.Sc-Biotechnology Entire-1		
52	Abhishek Arun More	Science	Vivekanand college (Empowered autonomous) Kolhapur	Bsc.Biotechnology Optional-I		
53	Rakesh Ashok Benake	Science	Vivekanand college (Empowered Autonomous) Kolhapur	Bsc Biotechnology Entire-1		

54	Vaishnavi sanjay Desai	Science	Vivekanand college <empoured autonomous>kolhapur	Bsc biotechnology Entire		
55	Shraddha Dipak Nalawade	Science	Vivekanand College (Empowered Autonomous) Kolhapur	BSC.Biotechnology Entire I		
56	Ankit Deepak Sawant	Science	Vivekananda College (Empowered Autonomous) Kolhapur	Bsc fy biotechnology optional		
57	Sushant Harishchandra Yadav	Science	Vivekanand college Autonomous	2 nd		
58	Kaumudi Prasad Phope	Bsc. 2nd Biotechnology entire	Vivekanand College Kolhapur	Bsc 2nd Biotechnology entire		
59	Shreepad Baban Jadhav	Science	Vivekanand College Kolhapur	Biotechnology Optional		
60	Sujal Sachin Suryavanshi	Science	Vivekanand College (Empowered Autonomous), Kolhapur	Bsc Biotechnology Entire I		
61	Sela Ajinkya Rege	Science (biotechnology entire)	Vivekanand college	2nd year		
62	Riya Sanjay Hirave	Science	Vivekanand College kolhapur (Empowered Autonomous)	Bsc 1st Biotechnology optional		
63	Sakshi Prakash Patil	Science	Vivekanand college kolhapur impowerd autonomous	BSC. 1 st biotechnology opt.		
64	Shreyas Harish Bam	Science biotechnology	Vivekanand college	2nd year		
65	Pranjal Parashuram Lohar	Biotechnology	Vivekanand college kolhapur	3rd		
66	Sejal Sharad Bugate	Science	Vivekanand College, Kolhapur	TY		
67	Abhishek Arun More	science	Vivekanand college (Empowered autonomous) kolhapur	bsc 1		
68	Shruti Sandip Kanekar	Science	Vivekanand College (Empowered Autonomous) Kolhapur	Bsc.Biotechnology Entire		

Some Screen shots from videos

“VAD -1611 Instrumentation Course in Life Sciences”

1. Adsorption Chromatography

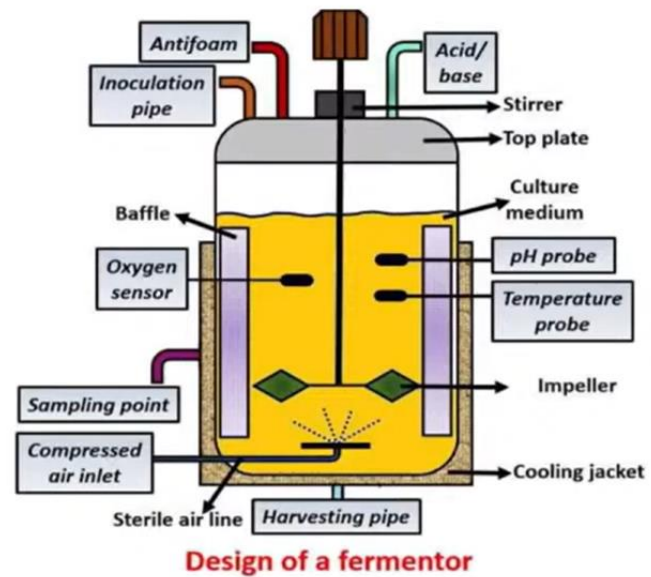
- i. Different compounds are adsorbed on the adsorbent to different degrees based on the absorptivity of the component.
- ii. a mobile phase is made to move over a stationary phase, thus carrying the components with higher absorption gives a lower distance travel.

2. Partition Chromatography

- i. The separation of the components from the sample mixture is carried out by the process of partition of the components between two phases.
- ii. Both phases are in liquid form. In this process, the immiscible solid surface coated with the liquid stationary phase is in the mobile phase.
- iii. The liquid surface is immobilized by a stationary phase which results in making it a stationary phase. The mobile phase moves from the stationary phase and components get separated.
- iv. The separation depends on different partition coefficients.

“Instrumentation Course in Life Sciences”

Design of Fermentor

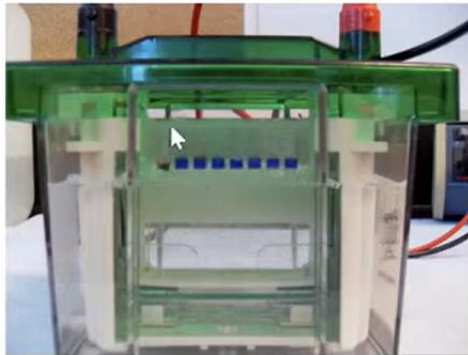


“Instrumentation Course in Life Sciences”

- [Immune Assay](#)
- [Immuno](#) refers to an immune response that causes the body to generate antibodies.
- Assay refers to a test.
- Thus immunoassay is a test that utilizes immunocomplexing when antibodies and antigens are brought together.
- [INTRODUCTION OF IMMUNOASSAY](#)
- [Immunoassay](#) are analytical methods based on the specific immuno-reaction between antibody(Ab) and antigen(Ag) for the determination of amount of either reactant in the solution. An antigen antibody complex is known as immuno-complex.
- An immunoassay is a test that uses antibody and antigen complex as a means of generating a measurable result.

“Instrumentation Course in Life Sciences”

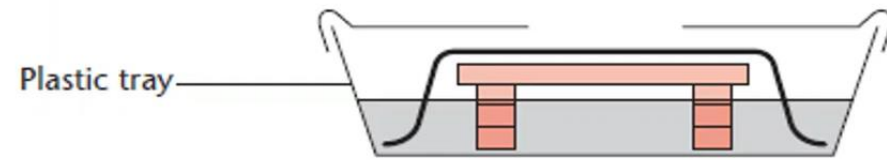
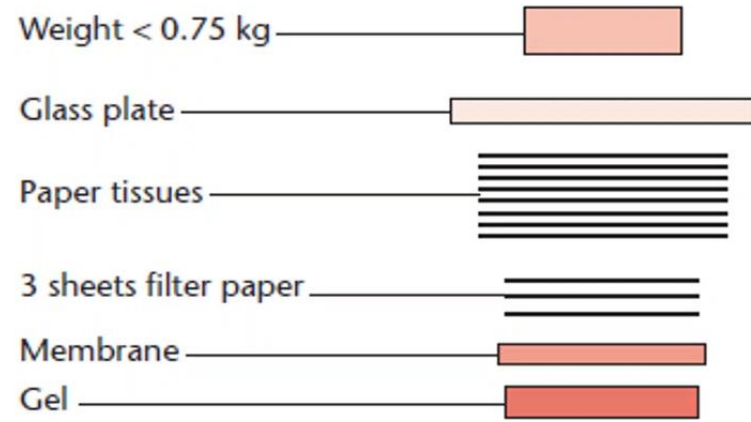
Sodium dodecyl sulfate - polyacrylamide gel electrophoresis (SDS-PAGE)



Provides a means to look at all the proteins in a cell simultaneously

Electrophoretic mobility of a protein depends on its molecular weight





Capillary plotting apparatus

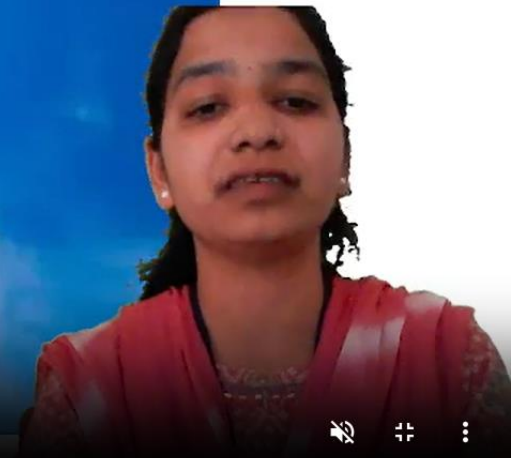


5:00 / 16:34



“VAD -1611 Instrumentation Course in Life Sciences”

3. Freezing:



8:51 / 19:00



Education for Knowledge Science and Culture”

-Dr Bapuji Salunkhe



**VIVEKANAND COLLEGE
(AUTONOMOUS),
KOLHAPUR**



Department of Biotechnology

Add On Course

“Instrumentation Course in Life Sciences”

SDS-PAGE: INTRODUCTION, PRINCIPLE, WORKING AND STEPS

INTRODUCTION

A technique used for the separation of proteins based on their molecular weights is known as (SDS-PAGE) sodium dodecyl sulfate-polyacrylamide [Gel electrophoresis](#).

PRINCIPLE OF SDS-PAGE

The principle states that the molecules separated based on their electrophoretic mobility will migrate towards their respective electrodes when placed in an electric field.

Electrophoretic mobility depends on the molecule's **structure, shape, and charge**. The structure and charge of the **proteins** are mainly responsible for the migration. The

Study Material first page view

Vivekanand College, Kolhapur

Question Paper (MCQ)

Test Name : Add on Course examination 2023 - 2024

Date : Tue Oct 08 2024

Marks :30

1) _____ instrument is used in separation using centrifugal force.

- A: vortex mixer
- C: Centrifuge

- B: Shaking Incubator
- D: Water bath

2) _____ instrument works on Lambert-beer's Law.

- A: PH meter
- C: Rotary shaker

- B: colorimeter
- D: Dialysis

3) _____ is the measure of negative Log of hydrogen ion concentration.

- A: Temperature
- C: Conductivity

- B: Solubility
- D: pH

4) _____ is used to measure absorbance in U.V, visible and infrared region of electromagnetic spectrum.

- A: Spectrophotometer
- C: Refractometer

- B: Colorimeter
- D: Ammeter.

5) _____ may be used to withdraw harmful chemicals with fixed quantity without touching and pipetting them.

- A: Glass pipette
- C: Auto pipettor

- B: Tilt the bottle
- D: Using a dropper.

6) _____ is used for wet incubation at a fixed temperature.

- A: Oven
- C: Incubator

- B: Dry bath
- D: Water bath

Vivekanand College, Kolhapur

Question Paper (MCQ)

Test Name : Add on course practical exam

Date : Tue Oct 08 2024

Marks :20

1) _____ term describes a part taken from a plant that can be placed on a nutrient medium to regenerate new plants.

- A: Enzyme
- B: Seedling
- C: Callus
- D: Explant

2) Plant part used for tissue culture is sterilized by _____ .

- A: Sodium hydroxide
- B: Sodium hypochlorite
- C: Potassium hydroxide
- D: Potassium dichromate

3) _____ nutrient medium is mostly used in plant tissue culture.

- A: MacConkey agar
- B: CRYEMA
- C: Murashige and skoog
- D: Potato dextrose agar

4) _____ instrument maintains aseptic condition during inoculation of explant in plant tissue culture.

- A: Laminar air flow
- B: Rotary shaker
- C: Autoclave
- D: Hotplate

5) _____ is the main purpose of the Polymerase Chain Reaction (PCR).

- A: Separate
- B: Sequence
- C: Cut
- D: Amplify

6) _____ is the primary purpose of using liquid nitrogen in homogenization .

- A: Heating the sample
- B: Freezing the sample
- C: Drying the sample
- D: Sterilizing the sample

Vivekanand College, Kolhapur

Date :

08/10/2024

Course Name : "Instrumentation Course in Life Sciences"

Test Name : Theory Exam 2023 - 2024

Marks : 30

Sr. No	Student Name	College Name	Class	Marks	Entered Date	Remark
1	PATIL SANIKA YUVRAJ			22	05-06-2024	Pass
2	YADAV JYOTI DEEPAK			25	05-06-2024	Pass
3	Aman Pralhad Mane	VCK	3rd	29	05-06-2024	Pass
4	Snehal Yalgonda Patil	Vck	3rd	29	05-06-2024	Pass
5	Aashish Tukaram Patil	Vivekanand College (Empowered Autonomous), Kolhapur	B.Sc-Biotechnology Entitre-II	46	05-06-2024	Pass
6	Siddhi Dipak Belekar	vivekanand college (Empowered Autonomous),kolhapur	B.sc Biotechnology -I	22	05-06-2024	Pass
7	Harsh Viraj Patnekar	Vivekananda college (empowered autonomous) Kolhapur	Bsc biotechnology entire 1	26	05-06-2024	Pass
8	Veena Nagnath Haveli	Vivekanand College (empowered autonomous) , Kolhapur	B.Sc Biotechnology Entire - I	26	05-06-2024	Pass
9	Ziya Mohammad Shafik Pendhari	Vivekananda College (Empowered Autonomous) Kolhapur	Bsc.Biotechnology(Optional)Fy	28	05-06-2024	Pass
10	Rutuja Shivanand Wali	Vivekananda College (Empowered autonomous), Kolhapur	Bsc. Biotechnology (entire) 1	24	05-06-2024	Pass
11	Teertha Raj Kamat	Vivekanand college (Empowered Autonomous) Kolhapur	B.sc Biotechnology [Entire] 2nd year	29	05-06-2024	Pass

12	Neha Ram Patil	Vivekanand college (empowered autonomous) kolhapur	first year	27	05-06-2024	Pass
13	Shreeya Suresh Patil	Vivekanand college (empowered autonomous)Kolhapur	BSc biotechnology entire II	26	05-06-2024	Pass
14	Kartikraj Bhagvan Patil	Vivekanand College(Empowerd Autonomous), Kolhapur	Bsc Microbiology-II	28	05-06-2024	Pass
15	Prerna Mohan Patil	Vivekananda College (Empowered autonomous) kolhapur	BSc.biotech entire-II	19	05-06-2024	Pass
16	Ashutosh Bhagwan Yatam	Vivekanand college(Empowered Autonomous	B.sc.microbiology 2 nd year	24	05-06-2024	Pass
17	Tanuja Netaji Mhettar	Vivekanand college kolhapur	1st year	25	05-06-2024	Pass
18	Maitreyi Manoj Salvi	Vivekananda College Kolhapur	First Year	25	05-06-2024	Pass
19	Siddhi Sunil Tibile	Vivekanand college (empowered Autonomous) Kolhapur	Bsc.Biotechnology Entire - III	25	05-06-2024	Pass
20	Harshvardhan Dhondiram Dabade	Vivekanand college (Empowered Autonomous) Kolhapur	Bsc Biotechnology Entire 1	26	05-06-2024	Pass
21	Srushti Suhas Patil	Vivekanand College Kolhapur	Bsc Biotech (ENT)	27	05-06-2024	Pass
22	Vaishnavi Vasudev Patil	Vivekananda college (Empowered Autonomous) Kolhapur	Bsc.Biotech entire I	28	05-06-2024	Pass
23	Arya Amol Patil	Vivekanand College [Empowered Autonomous] kolhapur	Bsc biotech entire I	27	05-06-2024	Pass
24	Anushka Arvind Nikam	Vivekanand College (Empowered Autonomous), Kolhapur	B.Sc Biotechnology (Entire) I	26	05-06-2024	Pass
25	Riya Surendra Yadav	Vivekananda college (Empowered Autonomous) kolhapur	Bsc Biotechnology(Entire)I	23	05-06-2024	Pass
26	Sanmati Rajabhau Navghane	Vivekanand college (empowered autonomous) kolhapur	Bsc Biotechnology entire II	26	05-06-2024	Pass

27	Samiksha Chandrakant Sawant	Vivekanand College (Empowered Autonomous) Kolhapur	Bsc Biotechnology entire -	27	05-06-2024	Pass
28	Swati Pravin Pawar	Vivekanand college (empowered autonomous) Kolhapur	Bsc Biotechnology (entire)	25	05-06-2024	Pass
29	Neha Ravindra Kadam	Vivekanand college (Empowered Autonomous) Kolhapur	Bsc Biotechnology (Entire)-I	14	05-06-2024	Pass
30	Shraddha Bahubali Latthe	Vivekanand college (Empowered Autonomous) Kolhapur	Bsc Biotechnology(Entire) I	24	05-06-2024	Pass
31	Sakshi Ratan Gaikwad	Vivekanand college (Empowered Autonomous) Kolhapur	B.sc Biotechnology(Entire) Ie	26	05-06-2024	Pass
32	Rohan Baban Mane	Vivekanand College Kolhapur(Empowered Autonomous)	B.Sc Microbiology II	19	05-06-2024	Pass
33	Sushant Krishnat Sonule	Vivekanand College (Empowered Autonomous), Kolhapur	Bsc Microbiology-II	26	05-06-2024	Pass
34	Vinayak Sanjay Jadhav	Vivekanand College (Empowered)autonomous Kolhapur	Bsc Microbiology-II	21	05-06-2024	Pass
35	Shraddha Dipak Nalawade	Vivekanand college (Empowered Autonomous) kolhapur	Bsc.Biotechnology Entire I	23	05-06-2024	Pass
36	Pranav Bhauso Adanna	Vivekanand college Kolhapur (Autonomous)	Bsc. II biotech(entire)	20	05-06-2024	Pass
37	Snehal Ananada Patil	Vivekanand college kolhapur Empowerment Autonomous	Bsc 1st year Biotechnology optional	15	05-06-2024	Pass
38	Nikhil Rajshekar Rajshekar	Vivekanand college kolhapur	first year	24	05-06-2024	Pass
39	Vijay khandu Doiphode	Vivekanand College (Empowered)	BSC Biotechnology-I	21	05-06-2024	Pass
40	sammed annaso patil	Vivekanand college (empowered) autonomous	BS.c SY	26	05-06-2024	Pass
41	Saniya Firozkhan Pathan	Vivekanand College (Empowered Autonomous)	B.Sc-Biotechnology Entire-I	26	05-06-2024	Pass
42	Ganesh Annaso Kumbhar	Vivekanand College (Empowered Autonomous), Kolhapur	B.Sc-Biotechnology Entire-1	27	05-06-2024	Pass

43	Rakesh Ashok Benake	Vivekanand college (Empowered Autonomous) Kolhapur	Bsc Biotechnology Entire-1	26	05-06-2024	Pass
44	Vaishnavi sanjay Desai	Vivekanand college <empoured autonomous>kolhapur	Bsc biotechnology Entire	21	05-06-2024	Pass
45	Ankit Deepak Sawant	Vivekananda College (Empowered Autonomous) Kolhapur	Bsc fy biotechnology optional	27	05-06-2024	Pass
46	Kaumudi Prasad Phope	Vivekanand College Kolhapur	Bsc 2nd Biotechnology entire	28	05-06-2024	Pass
47	Shreepad Baban Jadhav	Vivekanand College Kolhapur	Biotechnology Optional	24	05-06-2024	Pass
48	Sujal Sachin Suryavanshi	Vivekanand College (Empowered Autonomous), Kolhapur	Bsc Biotechnology Entire I	24	05-06-2024	Pass
49	Sela Ajinkya Rege	Vivekanand college	2nd year	22	05-06-2024	Pass
50	Riya Sanjay Hirave	Vivekanand College kolhapur (Empowered Autonomous)	Bsc 1st Biotechnology optional	10	05-06-2024	Pass
51	Shreyas Harish Bam	Vivekanand college	2nd year	27	05-06-2024	Pass
52	Pranjal Parashuram Lohar	Vivekanand college kolhapur	3rd	23	05-06-2024	Pass
53	Sejal Sharad Bugate	Vivekanand College, Kolhapur	TY	25	05-06-2024	Pass
54	Abhishek Arun More	Vivekanand college (Empowered autonomous) kolhapur	bsc 1	23	05-06-2024	Pass
55	Shruti Sandip Kanekar	Vivekanand College (Empowered Autonomous) Kolhapur	Bsc.Biotechnology Entire	23	12-06-2024	Pass
56	Sushant Harishchandra Yadav	Vivekanand college Autonomous	2 nd	24	11-07-2024	Pass
57	MAGDUM HARSHAVARDHAN ANNASO			24	23-07-2024	Pass

Vivekanand College, Kolhapur

Date :

08/10/2024

Course Name : "Instrumentation Course in Life Sciences"

Test Name : Add on course practical exam

Marks : 20

Sr. No	Student Name	College Name	Class	Marks	Entered Date	Remark
1	PATIL SANIKA YUVRAJ			9	05-06-2024	Pass
2	YADAV JYOTI DEEPAK			18	05-06-2024	Pass
3	Aman Pralhad Mane	VCK	3rd	20	05-06-2024	Pass
4	Snehal Yalgonda Patil	Vck	3rd	20	05-06-2024	Pass
5	Aashish Tukaram Patil	Vivekanand College (Empowered Autonomous), Kolhapur	B.Sc-Biotechnology Entitre-II	70	05-06-2024	Pass
6	Siddhi Dipak Belekar	vivekanand college (Empowered Autonomous),kolhapur	B.sc Biotechnology -I	17	05-06-2024	Pass
7	Harsh Viraj Patnekar	Vivekananda college (empowered autonomous) Kolhapur	Bsc biotechnology entire 1	19	05-06-2024	Pass
8	Veena Nagnath Haveli	Vivekanand College (empowered autonomous) , Kolhapur	B.Sc Biotechnology Entire - I	17	05-06-2024	Pass
9	Ziya Mohammad Shafik Pendhari	Vivekananda College (Empowered Autonomous) Kolhapur	Bsc.Biotechnology(Optional)F y	19	05-06-2024	Pass
10	Rutuja Shivanand Wali	Vivekananda College (Empowered autonomous), Kolhapur	Bsc. Biotechnology (entire) 1	17	05-06-2024	Pass
11	Teertha Raj Kamat	Vivekanand college (Empowered Autonomous) Kolhapur	B.sc Biotechnology [Entire] 2nd year	20	05-06-2024	Pass
12	Neha Ram Patil	Vivekanand college (empowered autonomous) kolhapur	first year	15	05-06-2024	Pass

13	Shreeya Suresh Patil	Vivekanand college (empowered autonomous)Kolhapur	BSc biotechnology entire II	18	05-06-2024	Pass
14	Kartikraj Bhagvan Patil	Vivekanand College(Empowerd Autonomous), Kolhapur	Bsc Microbiology-II	17	05-06-2024	Pass
15	Purna Mohan Patil	Vivekananda College (Empowered autonomous) kolhapur	BSc.biotech entire-II	15	05-06-2024	Pass
16	Ashutosh Bhagwan Yatam	Vivekanand college(Empowered Autonomous	B.sc.microbiology 2 nd year	17	05-06-2024	Pass
17	Tanuja Netaji Mhettar	Vivekanand college kolhapur	1st year	17	05-06-2024	Pass
18	Maitreyi Manoj Salvi	Vivekananda College Kolhapur	First Year	13	05-06-2024	Pass
19	Siddhi Sunil Tibile	Vivekanand college (empowered Autonomous) Kolhapur	Bsc.Biotechnology Entire - III	20	05-06-2024	Pass
20	Harshvardhan Dhondiram Dabade	Vivekanand college (Empowered Autonomous) Kolhapur	Bsc Biotechnology Entire 1	19	05-06-2024	Pass
21	Srushti Suhas Patil	Vivekanand College Kolhapur	Bsc Biotech (ENT)	18	05-06-2024	Pass
22	Vaishnavi Vasudev Patil	Vivekananda college (Empowered Autonomous) Kolhapur	Bsc.Biotech entire I	19	05-06-2024	Pass
23	Arya Amol Patil	Vivekanand College [Empowered Autonomous] kolhapur	Bsc biotech entire I	15	05-06-2024	Pass
24	Anushka Arvind Nikam	Vivekanand College (Empowered Autonomous), Kolhapur	B.Sc Biotechnology (Entire) I	15	05-06-2024	Pass
25	Riya Surendra Yadav	Vivekananda college (Empowered Autonomous) kolhapur	Bsc Biotechnology(Entire)I	14	05-06-2024	Pass
26	Sanmati Rajabhau Navghane	Vivekanand college (empowered autonomous) kolhapur	Bsc Biotechnology entire	19	05-06-2024	Pass
27	Samiksha Chandrakant Sawant	Vivekanand College (Empowered Autonomous) Kolhapur	Bsc Biotechnology entire -	17	05-06-2024	Pass

28	Swati Pravin Pawar	Vivekanand college (empowered autonomous) Kolhapur	Bsc Biotechnology (entire)	19	05-06-2024	Pass
29	Neha Ravindra Kadam	Vivekanand college (Empowered Autonomous) Kolhapur	Bsc Biotechnology (Entire)-I	9	05-06-2024	Pass
30	Shraddha Bahubali Latthe	Vivekanand college (Empowered Autonomous) Kolhapur	Bsc Biotechnology(Entire) I	16	05-06-2024	Pass
31	Sakshi Ratan Gaikwad	Vivekanand college (Empowered Autonomous) Kolhapur	B.sc Biotechnology(Entire) Ie	15	05-06-2024	Pass
32	Rohan Baban Mane	Vivekanand College Kolhapur(Empowered Autonomous)	B.Sc Microbiology II	15	05-06-2024	Pass
33	Sushant Krishnat Sonule	Vivekanand College (Empowered Autonomous), Kolhapur	Bsc Microbiology-II	18	05-06-2024	Pass
34	Vinayak Sanjay Jadhav	Vivekanand College (Empowered)autonomou s Kolhapur	Bsc Microbiology-II	16	05-06-2024	Pass
35	Shraddha Dipak Nalawade	Vivekanand college (Empowered Autonomous) kolhapur	Bsc.Biotechnology Entire I	16	05-06-2024	Pass
36	Pranav Bhauso Adanna	Vivekanand college Kolhapur (Autonomous)	Bsc. II biotech(entire)	11	05-06-2024	Pass
37	Snehal Ananada Patil	Vivekanand college kolhapur Empowerment Autonomous	Bsc 1st year Biotechnology optional	12	05-06-2024	Pass
38	Nikhil Rajshekar Rajshekar	Vivekanand college kolhapur	first year	15	05-06-2024	Pass
39	Vijay khandu Doiphode	Vivekanand College (Empowered)	BSC Biotechnology-I	17	05-06-2024	Pass
40	sammed annaso patil	Vivekanand college (empowered) autonomous	BS.c SY	17	05-06-2024	Pass
41	Saniya Firozkhan Pathan	Vivekanand College (Empowered Autonomous)	B.Sc-Biotechnology Entire-I	15	05-06-2024	Pass
42	Ganesh Annaso Kumbhar	Vivekanand College (Empowered Autonomous), Kolhapur	B.Sc-Biotechnology Entire-1	16	05-06-2024	Pass

43	Rakesh Ashok Benake	Vivekanand college (Empowered Autonomous) Kolhapur	Bsc Biotechnology Entire-1	19	05-06-2024	Pass
44	Vaishnavi sanjay Desai	Vivekanand college <empoured autonomous>kolhapur	Bsc biotechnology Entire	14	05-06-2024	Pass
45	Ankit Deepak Sawant	Vivekananda College (Empowered Autonomous) Kolhapur	Bsc fy biotechnology optional	17	05-06-2024	Pass
46	Kaumudi Prasad Phope	Vivekanand College Kolhapur	Bsc 2nd Biotechnology entire	18	05-06-2024	Pass
47	Shreepad Baban Jadhav	Vivekanand College Kolhapur	Biotechnology Optional	10	05-06-2024	Pass
48	Sujal Sachin Suryavanshi	Vivekanand College (Empowered Autonomous), Kolhapur	Bsc Biotechnology Entire I	13	05-06-2024	Pass
49	Sela Ajinkya Rege	Vivekanand college	2nd year	17	05-06-2024	Pass
50	Riya Sanjay Hirave	Vivekanand College kolhapur (Empowered Autonomous)	Bsc 1st Biotechnology optional	11	05-06-2024	Pass
51	Shreyas Harish Bam	Vivekanand college	2nd year	15	05-06-2024	Pass
52	Pranjal Parashuram Lohar	Vivekanand college kolhapur	3rd	17	05-06-2024	Pass
53	Sejal Sharad Bugate	Vivekanand College, Kolhapur	TY	18	05-06-2024	Pass
54	Abhishek Arun More	Vivekanand college (Empowered autonomous) kolhapur	bsc 1	15	05-06-2024	Pass
55	Shruti Sandip Kanekar	Vivekanand College (Empowered Autonomous) Kolhapur	Bsc.Biotechnology Entire	17	12-06-2024	Pass
56	Sakshi Prakash Patil	Vivekanand college kolhapur impowerd autonomous	BSC. 1 st biotechnology opt.	18	11-07-2024	Pass
57	MAGDUM HARSHAVARDHAN ANNASO			16	23-07-2024	Pass



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



Shri Swami Vivekanand Shikshan Sanstha's

**VIVEKANAND COLLEGE, KOLHAPUR.
(Autonomous)**

NAAC Reaccredited : "A" (CGPA 3.24), College with Potential for Excellence by U.G.C., New Delhi
"Star College" by D.B.T. Govt. of India, ISO: 9001-2015

CERTIFICATE

This is to certify that Mr/Ms. Patil Snehal Ananada of B. Sc.
i/y/i/i Biotechnology optional has passed the Value Added Course
"VAD -1611 Instrumentation Course in Life Science" in the Month of
June year 2023-24 The said certificate has been issued to him / her after
qualifying the Add-On Course Exam in Theory and Practical at Department of
Biotechnology, Vivekanand College, Kolhapur (Autonomous).

The Testimonials, whereof, are at the seal of the college and the signatures of the
co-ordinator and the Principal of the said college.


Co-ordinator
CO-ORDINATOR
ADD-ON COURSE
DEPARTMENT OF BIOTECHNOLOGY
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)




Principal
PRINCIPAL
VIVEKANAND COLLEGE, KOLHAPUR
(EMPOWERED AUTONOMOUS)