

Koyana Education Society Patan
Balasaheb Desai College Patan
Monthly Teaching Plan
Year 2023-24

Department: Microbiology

Class: B.Sc. Part - II

Month: July

Paper No.: V

Physiology

Name: Microbial Metabolism and

Name of Teacher : Dr. Mrs. Sapkal Manisha Ramchandra

Sr. No.	Date	Theory /Practical	Unit	Sub Unit	Teaching method	Teaching Aid/ICT Use
1	11	Theory	Growth and effect of environmental factors on microbial growth	Growth phases	Lecture	PPT
2	12	Theory		Growth phases	Lecture	PPT
3	13	Practical		Effect of temperature Measurement of growth- Cell number	Lecture Practical Demo	You tube
4	14	Theory		Measurement of growth- Cell mass	Lecture Practical Demo	Device
5	18	Theory		Types of Growth – synchronous	Lecture	PPT
6	19	Theory		Types of Growth – Continuous	Lecture	PPT
7	20	Theory		Diauxic growth	Lecture Demo	You tube
8	21	Theory		Effect of temperature	Lecture	Lab
9	24	Practical		Effect of pH	Lecture	lab

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Monthly Teaching Plan - Year 2023-24

Department: Microbiology

Class: B.Sc. Part - II

Month: August

Paper No.: V

Name: Microbial Metabolism and Physiology

Sr. No.	Date	Theory /Practical	Unit	Sub Unit	Teaching method	Teaching Aid/ICT Use
1	8	Theory & Practical	B) Effect of environmental factors on microbial growth	Effect of Salt Osmotic pressure	Lecture	
2	9	Theory		Heavy metal	Lecture	PPT
3	10	Theory		Radiations	Lecture Practical Demo	You tube
4	11	Theory	C) Transport across cell membrane	Diffusion	Lecture Practical Demo	Device
5	14	Theory & Practical		Heavy metal Active transport	Lecture	PPT
6	17	Theory		Group translocation	Lecture	PPT
7	18	Theory	Water Microbiology	Sources of m. o.'s in water	Lecture Demo	You tube
8	21	Practical		Effect of UV light	Lecture	
9	22	Theory		Fecal pollution of water	Lecture	Practical Demo
10	23	Theory		Indicators of fecal pollution	Lecture	Practical Demo
11	24	Theory		Routine bacteriological analysis of water	Lecture	Practical Demo
12	25	Theory		SPC	Lecture	Practical Demo
13	28	Theory & Practical		Peptone Nitrate broth preparation Test for coliform	Practical demo Lecture	
14	29	Theory & Practical		Nitrate reduction test Qualitative test	Practical demo Lecture	
15	30	Theory		Presumptive test	Lecture	
16	31	Theory		Confirmed test ,completed test	Lecture	

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Year 2023-24

Department: Microbiology
Month: September

Class: B.Sc. Part -II
Paper No.: VI
Name: Applied Microbiology

Sr. No.	Date	Theory /Practical	Unit	Sub Unit	Teaching method	Teaching Aid/ICT Use
1	1	Theory	Water Microbiology	Quantitative test	Lecture	
2	4	Practical		HL test IMVIC Test	Lecture	PPT
3	5	Theory		MPN test	Lecture Practical Demo	You tube
4	6	Theory		Membrane filter test	Lecture Practical Demo	Device
5	7	Theory		Municipal water purification process	Lecture	PPT
6	8	Theory	Dairy Microbiology	Municipal water purification process	Lecture	PPT
7	11	Theory & Practical		Urea agar preparation Sources of MOs in milk	Lecture Demo	You tube
8	12	Theory & Practical		Urea hydrolysis test Composition of milk	Lecture	You tube
9	13	Theory		DMC	Lecture	Device
10	14	Theory		SPC	Lecture Practical Demo	PPT
11	15	Theory		Dye reduction test	Lecture Practical Demo	PPT
12	25	Theory & Practical		Arginine test Pasteurization test	Lecture	You tube
13	26	Theory & Practical		Phosphatase test	Lecture Practical Demo	PPT
14	27	Theory & Practical		Phosphatase test	Lecture	You tube

Balasaheb Desai College Patan

Monthly Teaching Plan

Year 2023-24

Department: Microbiology

Class: B.Sc. Part - II

Month: October

Paper No.: VI

Name: Applied Microbiology

Name of Teacher : Dr. Mrs. Sapkal Manisha Ramchandra

Sr. No.	Date	Theory /Practical	Unit	Sub Unit	Teaching method	Teaching Aid/ICT Use
1	3	Theory & Practical	Industrial Microbiology	Basic concept	Lecture	
2	4	Practical		Definition	Lecture	PPT
3	5	Theory		Concept of primary Screening	Lecture Practical Demo	You tube
4	6	Theory		Concept of primary Screening	Lecture Practical Demo	Device
5	9	Practical		Concept of primary Screening	Lecture	PPT
6	11	Theory		Concept of primary Screening	Lecture	PPT
7	12	Theory		Concept of Secondary Screening	Lecture Demo	You tube
8	13	Theory		Types of fermenters - Batch	Lecture	PPT
9	17	Theory & practical		continuous	Lecture	You tube
10	18	Theory		Dual and multiple	Lecture	Device
11	19	Theory		dual and multiple	Lecture Demo	PPT
12	20	Theory		Fermenter design	Lecture	PPT
13	23	Practical		Antibiotic screening	Demonstration	You tube
14	25	Theory		Factors affecting fermentation process	Lecture	PPT
15	26	Theory		Fermentation media	Lecture Demo	You tube
16	27	Theory		Fermentation media	Lecture	Device

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Monthly Teaching Plan

Year 2023-24

Department: Microbiology

Class: B.Sc. Part - II

Month: November

Paper No.:

Name of Teacher : Dr. Mrs. Sapkal Manisha Ramchandra

(Diwali vacation : 02/11/2023 to 24/11/2023)

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Monthly Teaching Plan

Year 2023-24

Department: Microbiology

Class: B.Sc. Part - II

Month: December


Paper No.: VII

Name: Medical Microbiology and Immunology

Name of Teacher : Dr. Mrs. Sapkal Manisha Ramchandra

Sr. No.	Date	Theory /Practical	Unit	Sub Unit	Teaching method	Teaching Aid/ICT Use
1	4	Theory & Practical	Medical Microbiology	Definitions – Host, Parasite, Saprophytes, Commensal, Infection, Etiological agent, , Carriers,	Lecture	
2	5	Practical		Disease, Pathogen, Opportunistic pathogen, True 5 pathogen, Virulence, Pathogenicity , Fomite, Incubation period	Lecture	PPT
3	6	Theory		Morbidity rate, Mortality rate, epidemiology, etiology, Prophylaxis,	Lecture Practical Demo	You tube
4	7	Theory		Antigen, Antibody, Hapten, Vaccine, Immunity	Lecture Practical Demo	Device
5	14	Practical		Virulence factors (production of endotoxins, exotoxins,)	Lecture	PPT
6	18	Theory		enzymes,	Lecture	PPT
7	19	Theory		escaping of phagocytosis	Lecture Demo	You tube
8	20	Theory		Types of diseases – i) Epidemic, ii) Endemic,	Lecture	PPT
9	21	Theory & practical		iii) Pandemic, iv) Sporadic.	Lecture	You tube
10	25	Theory	Types of infections	– Chronic, acute, primary, secondary, reinfection,	Lecture	Device
11	26	Theory		Congenital, local, generalized, Covert, Overt, Simple, Mixed,	Lecture Demo	PPT
12	27	Theory		Iatrogenic, Endogenous, Exogenous, Latent, Pyogenic, Nosocomia	Lecture	PPT
13	28	Practical	Modes of transmission of diseases	Transmission by air,	Demonstration	You tube

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Monthly Teaching Plan

Year 2023-24

Department: Microbiology

Class: B.Sc. Part - II

Month: January

Paper No.: VII

Name: Medical Microbiology and Immunology

Sr. No.	Date	Theory /Practical	Unit	Sub Unit	Teaching method	Teaching Aid/ICT Use
1	1	Theory & Practical	Modes of transmission of diseases	water & food	Lecture	
2	2	Practical		Contact transmission , Vector borne transmission	Lecture	PPT
3	3	Theory, Practical		prevention of microbial diseases.	Lecture Practical Demo	You tube
4	4	Theory, Practical		prevention of microbial diseases.	Lecture Practical Demo	Device
5	8	Practical		Control of microbial diseases.	Lecture	PPT
6	9	Theory		Control of microbial diseases.	Lecture	PPT
7	10	Theory, Practical		Normal flora of human body & its significance	Lecture Demo	You tube
8	11	Theory, Practical		Normal flora of human body & its significance	Lecture	PPT
9	15	Theory & practical		Normal flora of human body & its significance	Lecture	You tube
10	16	Theory	Immunology	Defintion	Lecture	Device
11	17	Theory, practical		Innate Immunity	Lecture Demo	PPT
12	18	Theory, Practical		Acquired Immunity	Lecture	PPT
13	22	Practical	Non Specific defense	First line of defense	Demonstration	You tube
14	23	Theory		First line of defense	Lecture	PPT
15	24	Theory		First line of defense	Lecture	PPT
16	29	Theory		Second line of defense	Lecture	You tube
17	30	Theory		Second line of defense	Lecture	PPT
18	31	Theory		Second line of defense	Lecture	PPT

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Year 2023-24

Department: Microbiology

Class: B.Sc. Part - II

Month: February

Paper No.: VII

Name: Medical Microbiology and Immunology

Sr. No.	Date	Theory /Practical	Unit	Sub Unit	Teaching method	Teaching Aid/ICT Use
1	1	Theory & Practical	Immunology	Antigen :	Lecture	You tube
2	12	Practical		Chemical nature,	Lecture	PPT
3	13	Theory		Types of antigens	Lecture Practical Demo	You tube
4	14	Theory		Factors affecting antigenicity.	Lecture Practical Demo	Device
5	20	Practical		Factors affecting antigenicity	Lecture	PPT
6	21	Theory		Antibody	Lecture	PPT
7	22	Theory		Types of antibodies	Lecture Demo	You tube

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Year 2023-24

Department: Microbiology

Class: B.Sc. Part - II

Month: March

Paper No.: VII

Name: Medical Microbiology and Immunology

Sr. No.	Date	Theory /Practical	Unit	Sub Unit	Teaching method	Teaching Aid/ICT Use
1	4	Theory & Practical	Antibody	Types of antibodies –	Lecture	You tube
2	5	Practical		Structure, properties and functions.	Lecture	PPT
3	6	Theory, Practical		Structure, properties and functions.	Lecture Practical Demo	You tube
4	7	Theory, Practical		Theories of antibody production.	Lecture Practical Demo	Device
5	11	Practical		Theories of antibody production.	Lecture	PPT
6	12	Theory		Immune Response : Primary and.	Lecture	PPT
7	13	Theory, Practical		secondary immune responses	Lecture Demo	You tube
8	14	Theory, Practical		Mechanism of antigen – antibody reaction	Lecture	PPT
9	18	Theory		Types of antigen-antibody reaction- and	Lecture	You tube
10	19	Theory	Serology	Precipitation	Lecture	Device
11	20	Theory, Practical		Agglutination	Lecture Demo	PPT
12	21	Theory, Practical		Agglutination	Lecture	PPT You tube
13	26	Theory		Revision	Discussion	
14	27	Theory		Discussion on Question paper	Lecture	

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