

[Time: 3 Hours]

[Marks:80]

Please check whether you have got the right question paper.

- N.B:
1. Attempt all questions.
 2. Draw a neat labelled diagram wherever necessary.

Q.1	Answer the following.	
	a) Define Thermal death point and write its significance in sterilization.	2
	b) Explain disinfectant using suitable examples.	2
	c) Write any two neutralization methods used in sterility testing.	2
	d) Write the functions of condenser and iris diaphragm.	2
	e) Name any two Biological indicators used dry heat and filtration sterilization.	2
	f) Enlist different types of special media used in Microbiology laboratory.	2
	g) Write the diagnostic test used and causative agent for Tuberculosis.	2
	h) Write John Tyndall's contribution in Microbiology.	2
	i) Name any two Rickettsia infections with causative agents.	2
	j) Explain microbial limit test for salmonella typhi as per pharmacopeia.	2
Q.2	a) Explain the working of Phase contrast Microscopy with its application.	4
	b) Write a note on oncogenic viruses.	4
	c) Explain pasteurization method of sterilization and write it's applications in industries.	4
Q.3	a) Write a note on cell wall of gram negative bacteria.	4
	b) Enlist counting methods of bacteria and explain plate count method in detail with its application.	4
	c) Enlist the environmental factors affecting the growth of bacteria and explain any two in detail.	4
	OR	
	C Distinguish between gram positive and gram negative bacterial cell wall.	
Q.4	a) Write in detail morphology and structure of Viruses.	4
	b) Explain various fungal infections with causative agent involved.	4
	c) Write a note on chlamydial infections with causative agent.	4
	OR	
	c) Write a note on Biological and economic importance of algae.	4
Q.5	a) Discuss moist heat sterilization with respect to method, mechanism of action and applications.	4
	b) Explain mode of action, limitation and applications of alcohol and Halogen as a disinfectant.	4
	c) Explain phenol coefficient method for evaluation of disinfectants.	4
	OR	
	c) Distinguish between Ionizing and Nonionizing radiations using suitable examples.	4
Q.6	a) Enlist different methods of microbiological Assay and explain diffusion bioassay in detail.	4
	b) Explain sterility testing of injectables.	4
	c) Which methods do you use to evaluate microbial stability of formulation?	4
	OR	
	c) Write in detail role of laminar air flow in aseptic area.	4
