


Name:			
Enrolment No:			
UPES End Semester Examination December 2023			
Course: Pharmaceutical Microbiology Program: B. Pharm Course Code: BP303T		Semester: III Duration: 03 Hours Max. Marks: 75	
Instructions: No additional material like graph paper, log table, <i>etc</i> is allowed for this examination.			
SECTION A (20 Q x 1 M = 20 Marks)			
S. No.	Attempt all questions from section A.	Marks	COs
Q 1	Any eukaryotic organism that has cells with nuclei and is not an animal, plant or fungus are known as a) Protists b) Fungi c) Algae d) None of the above	1	CO1
Q 2	A book Micrographia is written by _____. a) Robert Koch b) Leeuwenhoek c) Robert Hooke d) Aristotle	1	CO1
Q 3	Classify bacteria based on bacterial arrangements.	1	CO1
Q 4	The cell wall of algae is made up of _____. a) Peptidoglycan b) Chitin c) Lignin d) Pectin	1	CO1
Q 5	Optical density is measured to determine microbial growth in _____.	1	CO1
Q 6	Bacteria which need oxygen for growth are called _____.	1	CO1
Q 7	The condenser on a light microscope used for _____.	1	CO1
Q 8	The viruses that attack bacteria are known as _____.	1	CO1
Q 9	The color of Gram's positive bacteria appears as _____ in Gram's staining.	1	CO1
Q 10	Mycology is study of a) Bacteria b) Fungi c) Virus d) Protozoa	1	CO1
Q 11	Bacterial cell does not immediately reproduce in new medium for little period is called as _____.	1	CO1
Q 12	IMViC test is carried out to identify members of the _____ family.	1	CO1
Q 13	List three techniques to isolate pure cultures?	1	CO1
Q 14	The typical temperature for an autoclave is _____ °C and operating pressure is _____ pounds per square inch.	1	CO2
Q 15	Phenol co-efficient is an indicative _____.	1	CO2

Q 16	The integrity of a high-efficiency particulate air (HEPA) filter in a biological safety cabinet is _____% for particle size _____.	1	CO4
Q 17	Expand the term ATCC.	1	CO4
Q 18	Define phenol coefficient.	1	CO4
Q 19	Cationic detergents act by _____.	1	CO4
Q 20	Microbiological Assay of Antibiotics, preparing the standard curve requires a total of _____ petri plates to accommodate _____ cylinders or cavities.	1	CO5
SECTION B (20 Marks) (2 Q x 10 M = 20 Marks)			
	Attempt any two questions from section B.	Marks	
Q 1	Distinguish prokaryotic and eukaryotic cells with the help of a well labeled diagram	10	CO2
Q 2	What do you mean by term staining in microbiology? Discuss the detailed protocol used for the bacterial identification by simple staining, and Gram's staining method.	2 + 8	CO4
Q 3	Define primary cell. Describe the type of lines with their characteristics and selection criteria in detail.	2+8	CO5
SECTION-C (35 Marks) (7 Q x 5 M = 35 Marks)			
	Attempt any seven questions from section C.	Marks	
Q 1	Differentiate between the Gram positive and Gram-negative cell wall.	5	CO1
Q 2	Draw the growth curve presenting growth pattern of bacteria and explain various growth phases.	2+3	CO1
Q 3	Define disinfection. Classify various methods of disinfection with suitable examples.	1+4	CO1
Q 4	What type and quality of airflow does the FDA require in the critical area? Give clean room classification with special emphasis on air borne particulate classification for Grade A, B, C & D.	2+3	CO2
Q 5	What are culture media? Classify the types of culture media with examples and their uses.	1+4	CO2
Q 6	Classify viruses based on genetic information	5	CO3
Q 7	Explain various sources of contamination in a sterile formulation area and mention the approaches used to prevent the contamination in an aseptic area?	5	CO3
Q 8	Explain cup-plate method used to determine microbiological assay of antibiotics.	5	CO5
Q 9	Define the term spoilage. Enlist various causes of product spoilage?	2+3	CO5