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# **Question Paper**

Exam Date & Time: 10 April 2021 (2 pm to 5 pm)

# MANIPAL ACADEMY OF HIGHER EDUCATION Pharmaceutical Microbiology [PGFBP303T]

Marks: 75 Duration: 180 mins.

# I Multiple Choice Questions (MCQs)

Answer all the questions. Section Duration: 30 mins (2 pm to 2:30 pm)

No.	Question								
1	The fourth kingdom proposed by Copeland was								
	Monera Protista		Fungi	Plantae					
2	The organelle in bacteria which is similar in function to mitochondria in eukaryotes is								
	Ribosomes	Volutin granules	Cytoplasmic mer	mbrane Cell wall					
3	Bacillus stearothermophilus is a biological indicator used in the sterilisation method.								
	Dry heat	Moist heat	lonising radiation	n Chemical sterilisation					
4	Holder method of pasteurization recommends heating of milk at 62.8 °C and holding it at that temperature for a time of								
	30 Seconds	30 minutes	15 Seconds	15 minutes					
5	Zygospores are		n'						
	Sexual spores of Rhizo	pus	Asexual spores of Rhizopus						
	Motile sporangiospore	S	Non-motile sporangiospores						
6	Which of the following	is NOT a viral disease?							
	Herpes	HIV	COVID-19	Ebola					
7	Reaction temperature Coefficient is	recommended for perfo	orming determination of	of the Rideal Walker					
	17.5±0.5 °C	27.5±0.5 °C	30°C	37 °C					
3	Identify the agar diffusion technique to determine the bacteriostatic action of the tested product on multiple organisms in a single petri plate.								
	Cup plate method Ditch plate method		pine bead method the above						
)	Identify the antagonist of halogen disinfectants.								
	Thioglycolic acid Sulfhydryl compounds Sodium thiosulphate Lecithin								
.0	Homogenous solutions of coal tar acids are known as								
	Dakin's solution	Eusol	Lysol	Black fluid					

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11	Which among the follow	ng iodine disinfe			
	Weak iodine solution	lodoform		odine solution BP	Lugol's iodine
12	Which of the following m growth of test organism				ation period for the
	Cylinder-plate method Titrimetric method	Ditch	limetric methoc plate method		
13	Identify the biosafety lev	el, where both p	rimary barriers		
	, w,	b) BSL 2	c) BSL 3		
14	In which of the following microorganisms?  a) Microbiological a b) Microbiological a c) Microbiological a d) Both b and c	ssay of antibiotions ssay of vitamins ssay of amino ac	cids		the growth of
15	Which of the following control and Fibroblastic cells by Epithelial-like cells control Lymphoblast-like dynamics.	s cells			
16	Which of the following is preparations?  a) Broad spectrum of the following is preparations?  b) Irritant c) Toxicity d) Selective reactivi	of activity tv with formulat	ion ingredients		euticai
17	Staphylococcus aureus	crobial contamir	nant found in th Clostridium teta Bacillus subtilis	e Plague vaccine? ani	
18	Which of the following is to prevent possible regre	s a suitable stora	ige temperature egative bacteria	e of water for injection ?	ns after distillation
	50° C 60°	_	70° C	80° C	
19	Which of the following p	rotective agents	s is used for cryo		nes?
	J.,	nnitol	Ethanol	Normal Saline	
20	Which of the following r	nodel cell line is	used for drug p	ermeability studies?	
I		F-7	HeLa	СНО	

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# **Question Paper**

Exam Date & Time: 10 April 2021 (2 pm to 5 pm)

MANIPAL ACADEMY OF HIGHER EDUCATION Pharmaceutical Microbiology [PGF-BP303T] Sections Duration: 150 mins (2:30 pm to 5 pm)

#### **II Long Answers**

# Answer all the questions.

1) A. Give the complete classification of bacterial culture media.

(10)

- B. Explain the principle and purpose of Blood Agar and Mannitol salt agar.
- 2) Discuss the source, sterilising dose, mode of action, applications, advantages and disadvantages of ionising radiations as a sterilisation method. Enlist the methods to reduce deleterious effects of ionising radiation.

(10)

# **III Short Answers**

### Answer all the questions.

1) Enlist Koch's postulates (2 marks). Write a note on types of flagella arrangements with suitable examples (3 marks).

(5)

- 2) Expand IMViC (1 mark). With a note on the principle and protocol of MRVP test, explain how E.coli can be differentiated from Enterobacter by these tests (4 marks).
- 3) Write an elaborte note on various fungal asexual spores.

(5)

Discuss the effect of temperature on the course of disinfection of a disinfectant.

(5)

Explain active microbial sampling and passive microbial sampling in a cleanroom.

(5)

6) Explain the microbiological assay of antibiotics using the cylinder-plate method.

(5)

7) Write a note on the applications of cell culture in Pharmaceutical Technology.

(5)

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