

Register Number									
--------------------	--	--	--	--	--	--	--	--	--

11	Which among the following iodine disinfectant is chiefly used as a deodorant? Weak iodine solution Iodoform Aqueous iodine solution BP Lugol's iodine
12	Which of the following microbiological assay of antibiotics has a shorter incubation period for the growth of test organism Cylinder-plate method Turbidimetric method Titrimetric method Ditch plate method
13	Identify the biosafety level, where both primary barriers and safety equipment are required? a) BSL 1 b) BSL 2 c) BSL 3 d) Both b and c
14	In which of the following microbiological assay, the test substance may inhibit the growth of microorganisms? a) Microbiological assay of antibiotics b) Microbiological assay of vitamins c) Microbiological assay of amino acids d) Both b and c
15	Which of the following cells grow attached to a substrate? a) Fibroblastic cells b) Epithelial-like cells c) Lymphoblast-like cells d) Both a and b
16	Which of the following is a property of an ideal preservative used in pharmaceutical preparations? a) Broad spectrum of activity b) Irritant c) Toxicity d) Selective reactivity with formulation ingredients
17	Identify the common microbial contaminant found in the Plague vaccine? Staphylococcus aureus Clostridium tetani Pseudomonas aeruginosa Bacillus subtilis
18	Which of the following is a suitable storage temperature of water for injections after distillation to prevent possible regrowth of Gram-negative bacteria? 50° C 60° C 70° C 80° C
19	Which of the following protective agents is used for cryopreservation of cell lines? Glycerol Mannitol Ethanol Normal Saline
20	Which of the following model cell line is used for drug permeability studies? Caco-2 MCF-7 HeLa CHO

Register Number										
--------------------	--	--	--	--	--	--	--	--	--	--

Question Paper

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

MANIPAL ACADEMY OF HIGHER EDUCATION
Pharmaceutical Microbiology [PGT-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). (5)
- 3) Write an elaborate note on various fungal asexual spores. (5)
- 4) Discuss the effect of temperature on the course of disinfection of a disinfectant. (5)
- 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)

-----End-----

