

Question Paper

Exam Date & Time: 05-Jul-2023 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Instructions: Answer ALL questions.

Pharmaceutical Microbiology [PBT 2.2T-S3]

Marks: 70

Duration: 180 mins.

Section A

Answer all the questions.

Long Answer Questions (3 x 10 marks = 30 marks)

- 1) Describe the processes for preservation and maintenance of microbial cultures. Add a note on process for maintaining the culture in the same stage of growth. (10)
- 2) Draw the phase diagram and discuss the properties of saturated steam. Explain the effectiveness of saturated steam as a sterilizing agent. (10)
- 3) Write the causative microorganism, mode of transmission, important symptoms, and treatment of syphilis. (10)

Section B

Answer all the questions.

Short Answer Questions (6 x 5 marks = 30 marks)

- 4) Explain the methods for isolation of pure cultures. (5)
- 5) Explain the source of ultraviolet rays, the mode of action, and its limitations. (5)
- 6) Write a note on the assessment of the bacteriostatic activity by gradient plate method. (5)
- 7) With the help of a neat labelled diagram, explain the process of phagocytosis. (5)
- 8) Differentiate exotoxins from endotoxins. Add a note on necessity of booster dose. (5)
- 9) Explain the principle and method for carrying out microbiological assay of Cyanocobalamin. (5)

Section C

Answer all the questions.

Give Reasons for the Following (5 x 2 marks = 10 marks)

- 10) Stringent anaerobes cannot be cultivated using dilution technique. (2)
- 11) Acid fast bacteria need drastic conditions for staining. (2)
- 12) Preservatives should never be added to mask poor manufacturing processes. (2)
- 13) Alcohol at 80% or higher concentration is not an effective disinfectant. (2)
- 14) Gelatin was replaced with Agar Agar for making solid cultures. (2)

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