

Q.P. Code : 36175

[Time: Three Hours]

[ Marks:80]

Please check whether you have got the right question paper.

- N.B: 1. All questions are compulsory.  
2. Draw a neat labelled diagram wherever necessary.

Q1 Answer the following:

- a) i) Define Resolving power. **01**  
 ii) Classify bacteria on the basis of pH requirement. **01**  
 iii) Name the causative agent of tetanus. **01**  
 iv) Give the examples of flagellated Bacteria. **01**
- b) i) Draw a neat labelled diagram of Bacterial Endospore. **02**  
 ii) Contribution of Louis Pasteur in Microbiology. **02**  
 iii) Explain with suitable example - Differential medium. **02**  
 iv) Write the causative agent and diagnostic test for Typhoid. **02**  
 v) Name the Rickettsial infections with the causative agent. **02**  
 vi) Define Tumor Viruses with examples. **02**  
 vii) Explain tissue toxicity index. **02**  
 viii) Explain the steps involved in Microbial limit test of Salmonella. **02**

- Q.2 a) Describe in detail with ray diagram - dark field microscopy. **04**  
 b) Discuss in detail dry heat sterilization with respect to method mode of action and applications. **04**  
 c) Write in detail sterilization by Radiation. **04**

- Q.3 a) Explain in detail methods of preservation of bacteria. **04**  
 b) Explain in brief growth phases of Bacteria. **04**  
 c) Lytic cycle in T4 bacteriophage. **04**

OR

- c) Lysogeny in  $\lambda$  bacteriophage **04**

- Q.4 a) Write a note on Reproduction in fungi. **04**  
 b) Explain in detail methods of cultivation of Anaerobic bacteria. **04**  
 c) Biological and Economic importance of algae **04**

OR

- c) Protozoan infections. **04**

- Q.5 a) Write a note on Mode of action and practical applications of halogens as disinfectant **04**  
 b) Describe Phenol coefficient test **04**  
 c) Write ideal characteristics of disinfectants **04**

OR

- c) Write ideal characteristics of disinfectants. **04**

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- Q.6 a) Explain in detail different methods for Isolation of pure culture of bacteria.
- b) Explain the steps involved in sterility testing of Parental preparations
- c) What are different Precautions taken to prevent contaminations in Laminar flow unit

04  
04  
04

OR

- c) Layout of Aseptic Area

04

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