

Q.P. Code :02352

[Time: Three Hours]

[Marks:70]

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.**

- Q.1** Answer the following:-
- Define angular aperture. **1**
 - Define sanitizer with example. **1**
 - Explain Decimal Reduction Time. **1**
 - Name the fungus used for positive control in sterility testing. **1**
 - Give two examples of gram negative bacteria. **1**
 - Name the causative agent of tetanus. **1**
 - Write the diagnostic test for malaria. **1**
 - Write Alexander Fleming's contribution in the field of Microbiology. **1**
 - Define glycocalyx **1**
 - Name two Rickettsial infections with the causative agents. **2**
 - Explain selective media with suitable example. **2**
 - Explain principle of Acid fast staining. **2**
- Q.2**
- Write a note on action and applications of filtration sterilization **4**
 - Discuss methods of cultivation of viruses **4**
 - Explain cultivations of anaerobic bacteria. **3**
- Q.3**
- Explain Dark field Microscopy using neat labelled diagram. Write its applications. **4**
 - Discuss moist heat sterilization with respect to method, mode of action, applications and write the biological indicators used. **4**
 - Distinguish between **(any one)** **3**
 - Bacteria and viruses.
 - SEM & TEM
- Q.4**
- Describe growth cycle of bacteria **4**
 - Write in brief mechanism of action and applications of gaseous sterilizing agents. **4**
 - Write note on **(any one)** **3**
 - Infections caused by fungi
 - Life cycle of malarial parasite.
- Q.5**
- What is pure culture? Explain any two methods of isolation of pure culture. **4**
 - How to evaluate the efficiency of a new disinfectant. **4**
 - Write a note on **(any one)** **3**
 - oncogenic viruses.
 - Asexual reproduction in fungi.

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- Q.6 a)** Draw neat labelled diagrams of :-
- i) Ray diagram of Fluorescence Microscopy.
 - ii) Gram negative cell wall.
- b) Discuss in detail morphological and nutritional characters of bacteria.
- c) Explain briefly significance of algae in pharmaceutical field.

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OR

Explain the diseases caused by Salmonella spp.