

Time : 3 Hours

Marks: 70

Q.1 Answer the following

- a. Explain scope of Pharmaceutical microbiology 1
- b. Define and give significance of Thermal Death Point 1
- c. Draw a diagram of bacterial spore 1
- d. Name the causative agent of tetanus 1
- e. Name the media used for sterility testing 1
- f. Define numerical aperture 1
- g. Explain the term Retroviruses 1
- h. Explain Biological Indicators & give two examples 2
- i. Name any two protozoan infections with the causative agent 2
- j. Name any two chlamydial infections with the causative agent 2
- k. Write functions of flagella and pilli 2

- Q.2
- a) Explain dark field microscopy using a neat labelled diagram with its applications 4
 - b) Discuss dry heat sterilization with respect to method, the mechanism of action and applications 4
 - c) Explain different methods of preservation of bacteria 3

- Q.3
- a) Draw a diagram of
 - i) Chick embryo cultivation of viruses 4
 - ii) Lytic cycle of bacteriophage 4
 - b) Discuss in detail phenol coefficient test of disinfectant evaluation 4
 - c) Distinguish between bacteria and viruses 3

- Q.4
- a) Explain pure culture techniques for isolation of bacteria 4
 - b) Discuss in detail infections caused by rickettsia 4
 - c) With suitable example explain selective media 3

- Q.5
- a) Discuss in detail gaseous sterilization 4
 - b) Write a note on alcohol as a disinfectant 4
 - c) Explain commercial uses of algae 3

- Q.6
- a) write a note on identification of bacteria on the basis of morphological characteristics 4
 - b) Explain phases of bacterial growth cycle 4
 - c) Explain the principle of Gram staining technique 3
