

Roll No

PY-304

B.Pharmacy III Semester

Examination, December 2016

Pharmaceutical Microbiology

Time : Three Hours

Maximum Marks : 70

- Note:* i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.
ii) All parts of each question are to be attempted at one place.
iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.
iv) Except numericals, Derivation, Design and Drawing etc.

1. a) Why microbial classification is important?
b) Name various microscopic techniques used in microbiology.
c) What is wet mount technique?
d) Name various structures present in a bacterial cell using a labelled diagram. Discuss pili and spores.

OR

Explain in detail the importance and relevance of microbiology in pharmacy.

2. a) Differentiate between psychrophiles and mesophiles.
b) Define differential media and selective media.
c) What is oxygen toxicity?
d) What is isolation? Why it is important? Explain methods of bacterial isolation.

OR

Explain different methods of cultivating virus with their advantages and disadvantages.

3. a) What are mutations?
b) Differentiate between a disinfectant and an antiseptic.
c) Write any three advantages of studying microbial genetics.
d) Enlist various factors affecting disinfectant action. Explain any two of them.

OR

Explain the method for sterility testing of an aqueous parenteral solution as per IP.

4. a) What do you mean by immunity?
b) Define communicable diseases.
c) Write causative agents and mode of transmission of: Measles, diphtheria, poliomyelitis, hepatitis, filariasis and AIDS.
d) Write brief notes on:
i) External defense mechanisms;
ii) Microbial resistance.

OR

What is the complement system? Explain the working of its pathways.

5. a) What is BOD and COD.
b) Write the role of aseptic handling in food preservation.
c) Explain the principle for microbiological assay of vitamins.
d) How can we preserve foods by using temperature methods?

OR

Write a note on sewage treatment methods.
