



P-014-003501

Seat No. _____

M. P. M. (Sem. V) (External - Repeater) Examination

November / December - 2018

Pharmaceutical Microbiology - I

Faculty Code : 014

Subject Code : 003501

Time : 3 Hours]

[Total Marks : 80

- Instructions :**
- (1) Figure to the right indicates marks.
 - (2) Answer the three (03) questions from each section.
 - (3) Question one (1) and question five (5) are compulsory ".
 - (4) Draw neat and clean diagrams as required.

SECTION – I

- 1** Write a note on following : (any **seven** out of ten) **2×7=14**
 - (a) Antiseptic and Aseptic
 - (b) Pasteurization
 - (c) Desiccation
 - (d) HEPA
 - (e) Differential growth media
 - (f) Fluid-B
 - (g) Lophotrichous flagella
 - (h) Objective lens
 - (i) Importance of spread plate technique
 - (j) CFU/ml
- 2** Answer the following :
 - (a) Write a note on a compound Microscope. What are the applications of Microscopes ? **7**
 - (b) Write a note on mechanical control of microbes. **6**
- 3** Answer the following :
 - (a) Discuss the scope and applications of microbiology in Pharmaceuticals. **6**
 - (b) Write a detail note on experiments done by Louis Pasteur. **7**

- 4 Answer the following :
- (a) Write a note on microbial contamination and methods of prevention. 7
 - (b) What are the roles of positive and negative controls in sterility testing ? 6

SECTION – II

- 5 Answer any **two** out of three : 7×2=14
- (a) Write a note on microbial limit test.
 - (b) Write a note on colorimetric growth detection method for sterility testing.
 - (c) Write a detail note on TEM.
- 6 Answer the following :
- (a) Write a detail note on structure of prokaryotic cells with diagram. 7
 - (b) What do you mean by generation time? Explain the different stages of bacterial growth with labeled diagram. 6
- 7 Answer the following :
- (a) How to classify the bacterial culture by Gram's staining technique ? Describe the morphology of the bacteria with reference to their shapes and arrangements. 7
 - (b) Calculate the Microbicidal effect (ME) for a test in which the number of surviving organisms are 1000 and the original inoculum size was 10000000. What is the generally accepted value of ME ? 6
- 8 Answer the following :
- (a) Describe mode of action and applications of Halogens. 7
 - (b) Write a note on industrially important fungus. 6
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