



JBM-014-1043005

Seat No. _____

M. P. M. (Sem. III) Examination

December - 2019

Pharmaceutical Microbiology - BP303T

Faculty Code : 014

Subject Code : 1043005

Time : **3 Hours]**

[**Total Marks : 75**

- Instructions :** (1) Figures to the right indicate marks.
(2) Draw neat and clean diagrams as required.

1 Write notes on following : 10×2=20

- (1) Prokaryotes and Eukaryotes.
- (2) Culture media and its types.
- (3) Principle of Gram's staining.
- (4) Thermal death measurements.
- (5) Aerobes and Facultative aerobes.
- (6) Redox potential.
- (7) ATCC and MTCC.
- (8) Contamination and Aseptic area.
- (9) Sterilization and Disinfection.
- (10) Factors affecting death rate of microbes.

2 Answer the following : (Any 2 out of 3) 2×10=20

- (1) How do fungus reproduce ? Discuss Sexual and Asexual reproduction in detail.
- (2) Write a detail note on Bacterial growth curve. What do you mean by CFU/ml ? How to calculate CFU/ml ?
- (3) How to identify microbes ? Write a detail note on IMViC test.

3 Answer the following : (Any 7 out of 9)

7×5=35

- (1) What type of pharmaceuticals are sensitive to spoilage? Discuss.
- (2) Describe observable effects of microbial attack on pharmaceutical products.
- (3) Write a note on preservation of pharmaceutical products using antimicrobial agents.
- (4) What are the applications of cell culture techniques in pharmaceutical industry and research?
- (5) How do viruses multiply? Describe in detail.
- (6) Discuss mode of action, examples and applications of Halogens for the control of microbes.
- (7) Write a note on Phase Contrast Microscopy. Explain its principle by schematic diagram.
- (8) What is the importance of microbes in our daily life? Discuss with examples.
- (9) What do you understand by sterility test? Describe Colorimetric growth detection method in detail.
