

SUBJECT: PHARMACEUTICAL MICROBIOLOGY – I

Day: Thursday
Date: 22/11/2018

W-2018-4077

Time: 02.00 PM TO 05.00 PM
Max. Marks: 60

N.B:

- 1) **Q. No. 1 and Q. No. 5 are COMPULSORY.** Out of remaining attempt **ANY TWO** questions from Section – I and Section – II.
 - 2) Answer to the both sections should be written in **SEPARATE** answer book.
 - 3) Figures to the right indicate **FULL** marks.
 - 4) Draw neat and labeled diagrams **WHEREVER** necessary.
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SECTION – I

- Q.1** Answer **ANY FIVE** of the following (10)
- a) What is Whittaker's Five Kingdom System?
 - b) Define Mycology and Taxonomy.
 - c) List features of *Salmonella* species.
 - d) Write the significance of peptidoglycan in bacteria.
 - e) Compare between scanning and transmission electron microscopes.
 - f) Which fluorescent dyes are used in Fluorescence Microscopy?
- Q.2** a) Discuss the role of bacterial cell components. (06)
b) Explain 'Pour Plate Technique' Write its significance. (04)
- Q.3** a) Describe why Louis Pasteur is called as 'Father of Microbiology'. (06)
b) Write commercial significance of various microbial species. (04)
- Q.4** Write short notes on **ANY TWO** of the following. (10)
- a) Biochemical identification of bacteria
 - b) Lyophilization
 - c) Phase Contrast Microscopy

SECTION – II

- Q.5** Answer **ANY FIVE** of the following (10)
- a) How to sterilize milk?
 - b) Give applications of yeasts
 - c) Actinomycetes are bacteria with fungal morphology. Justify this statement.
 - d) What are the characteristics of Rickettsia?
 - e) Which are the sites of viral inoculation in embryonated eggs?
 - f) Write the disinfection mechanism of alcohols.
- Q.6** a) Describe classification, structure, isolation and signification of actinomycetes. (06)
b) Describe methods of viral cultivation. (04)
- Q.7** Explain in detail 'Testing of Sterile Pharmaceutical Products' as per IP. (10)
- Q.8** Write short notes on **ANY TWO** of the following. (10)
- a) Evaluation of Disinfectants
 - b) Physical Sterilization
 - c) Morphology of Viruses.