

SECOND YEAR PHARM. D (SUPPLEMENTARY) : SUMMER - 2018

SUBJECT : PHARMACEUTICAL MICROBIOLOGY

Day : Tuesday

S-2018-4056

Time : 02.00 P.M. TO 05.00 PM

Date : 03/07/2018

Max. Marks : 70

N.B.:

- 1) **Q.NO.1 and Q.No.5 are COMPULSORY.** Out of the remaining questions attempt **ANY TWO** questions from each section.
- 2) Answers to both the sections should be written in **SEPARATE** answer books.
- 3) Figures to the right indicate **FULL** marks.
- 4) Draw neat and labeled diagrams **WHEREVER** necessary.

SECTION – I

- Q.1** a) Answer **ANY FOUR** of the following: [08]
- i) Give an account on Koch Postulates.
 - ii) Explain morphological characteristics of *Aspergillus niger*.
 - iii) Classify Viruses.
 - iv) Give importance of fungi.
 - v) Describe Phagocytosis.
- b) Explain evaluation of preservatives in pharmaceutical preparations. [03]
- Q.2** Define Sterilization. Describe in detail various methods of sterilization. [12]
- Q.3** a) Explain scope and applications of microbiology in pharmaceuticals. [07]
- b) Describe in brief merits, demerits and applications of Monoclonal Antibodies. [05]
- Q.4** Write short notes on **ANY THREE** of the following: [12]
- a) Bacterial Reproduction
 - b) Total viable count
 - c) Phenol Coefficient Test
 - d) Hepatitis

SECTION – I

- Q.5** a) Answer **ANY FOUR** of the following: [08]
- i) Define 'MIC' and 'Microbial Assays'.
 - ii) Draw a neat labeled diagram of HIV.
 - iii) Draw the structure of *Vibrio cholera*.
 - iv) Give the quality control tests for vaccines.
 - v) Describe principle of endospore staining technique.
- b) Describe in detail ELISA test. [03]
- Q.6** Explain the life cycle of bacteriophages. Add a note on different techniques used for cultivation of viruses. [12]
- Q.7** a) Explain principle and characteristics of Antigen-Antibody Reactions. [07]
- b) Discuss in detail bacterial growth curve. [05]
- Q.8** Write short notes on **ANY THREE** of the following: [12]
- a) Tuberculosis
 - b) Gram Negative Bacteria
 - c) Triple Vaccine
 - d) Assay of Penicillin