

Second Year Pharm. D (SUPPLEMENTARY) : SUMMER - 2019
SUBJECT : PHARMACEUTICAL MICROBIOLOGY

Day : Tuesday
Date : 02/07/2019

S-2019-4535

Time : 02.00 P.M. TO 05.00 PM
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 the **SEPARATE** answer books.
- 3) Figures to the right indicate **FULL** marks.

SECTION – I

- Q.1** A) Answer **ANY FOUR** of the following: [08]
- i) What is “Q-fever”?
 - ii) Compare between Bacteria and Fungi.
 - iii) Elaborate the mechanism of Moist heat sterilization.
 - iv) List the methods for microbial preservation.
 - v) Write general characteristics of viruses.
- B) How bacterial growth is measured? [03]
- Q.2** Explain isolation and identification of Aerobic Bacteria. [12]
- Q.3** a) Discuss the major contributions of various scientists that lead to the development of pharmaceutical microbiology. [07]
- b) How viruses are cultivated? [05]
- Q.4** Write short notes on **ANY THREE** of the following: [12]
- a) Bacterial growth
 - b) Phenol as Disinfectants
 - c) Cold Sterilization
 - d) Validation of Sterilization Process

SECTION – II

- Q.5** A) Answer **ANY FOUR** of the following: [08]
- i) Define: a) Exotoxins b) Toxoids.
 - ii) Write applications of Hybridoma technology
 - iii) How bacteria cause diseases?
 - iv) Compare between Active and Passive Immunity.
 - v) Give biological significance of Complement System.
- B) Match the following: [03]

	A		B
i)	Schick's Test	a)	HIV
ii)	QBC Test	b)	Diphtheria
iii)	Widal Test	c)	Typhoid
iv)	Southern Blot Test	d)	Malaria

- Q.6** a) Discuss the process and significance of phagocytosis. [07]
- b) Explain various diagnostic tests for HIV infections. [05]
- Q.7** a) Write a detailed account on Antigen-Antibody reactions. [07]
- b) How vaccines are preserved and standardized? [05]
- Q.8** Write short notes on **ANY THREE** of the following: [12]
- a) Malaria
 - b) Microbial Assay of Vitamin B₁₂
 - c) Acquired Immunity
 - d) Immunoglobulins

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