

**S.Y.B.PHARM. SEMESTER-IV (CBCS - 2015 Course) : SUMMER -
2019**

SUBJECT: PHARMACEUTICAL MICROBIOLOGY – II

Day: Saturday
Date: 27/04/2019

S-2019-4389

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 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** Answer **ANY FIVE** of the following **(10)**
- a) What is 'Challenge Test'?
 - b) Which methods are used to perform microbial assay of vitamins?
 - c) Define and explain MIC.
 - d) Give significance of Most Probable Number (MPN) methods.
 - e) Why antifoaming agent is added in fermentation media?
 - f) Enlist microbial products obtained via fermentation using microbial catalysts.
- Q.2** a) List and explain sources and types of microbial contamination. **(06)**
b) Discuss the parameters monitored to control the fermentation process. **(04)**
- Q.3** a) Describe the techniques used to isolate and screen microbial cultures for fermentation. **(06)**
b) What are microbial assays? Write their merits, demerits and significance. **(04)**
- Q.4** Write short notes on **ANY TWO** of the following. **(10)**
- a) Microbial Limit Test (MLT)
 - b) Packed Column Fermenter
 - c) Downstream Processing

SECTION – II

- Q.5** Answer **ANY FIVE** of the following **(10)**
- a) Enlist probiotic strains.
 - b) Define biohazards with examples.
 - c) Classify Vaccines.
 - d) What is delayed hypersensitivity reaction?
 - e) Differentiate between Active and Passive Immunity.
 - f) What is a Booster Dose and its significance?
- Q.6** Write a detailed note on production of bacterial vaccines. Add a note on 'Quality Control of Vaccines' **(10)**
- Q.7** a) Explain the practices and procedures to be followed for preventing exposure to biohazards. **(06)**
b) Discuss characteristics and pharmacological effects of probiotics. **(04)**
- Q.8** Write short notes on **ANY TWO** of the following. **(10)**
- a) Immunofluorescence
 - b) Phagocytosis
 - c) Antigen-Antibody reactions

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