

S.Y.B.PHARM. SEMESTER-IV (CBCS - 2015 COURSE) :

WINTER - 2017

SUBJECT: PHARMACEUTICAL MICROBIOLOGY – II

Day : **Saturday**
Date : **11/11/2017**

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

W-2017-3795

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.

SECTION – I

- Q.1** Answer **ANY FIVE** of the following: [10]
- a) Give types of microbial contamination.
 - b) Write commercial fermentation products.
 - c) Write merits and demerits of Microbial Assay.
 - d) Draw a well labeled diagram of Air Lift Fermenter.
 - e) List various fermentation parameters.
 - f) How to detect *Salmonella* contamination?
- Q.2** a) Discuss downstream processing in detail. [06]
b) How to improve microbial strains? [04]
- Q.3** a) What is Koji fermentation? Write a note on Tray Fermenter. [06]
b) Write about microbial standards for non-sterile pharmaceuticals. [04]
- Q.4** Write short notes on **ANY TWO** of the following: [10]
- a) MIC
 - b) Challenge Test
 - c) Inoculum Development

SECTION – II

- Q.5** Answer **ANY FIVE** of the following: [10]
- a) Classify different types of immunity.
 - b) Write the significance of probiotics.
 - c) What is *Erythroblastosis foetalis*?
 - d) Compare between IgG and IgE immunoglobulins.
 - e) What are adjuvants?
 - f) Enlist applications of monoclonal antibodies.
- Q.6** a) Describe Cytotoxic hypersensitivity in detail. [06]
b) How complement system provides immunity? [04]
- Q.7** a) How vaccines are standardized? [06]
b) Write a short note on 'Immune Response'. [04]
- Q.8** Write short notes on **ANY TWO** of the following: [10]
- a) ELISA
 - b) Triple vaccine
 - c) Biohazards

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