

S.Y.B.PHARM. SEMESTER-IV (2011 COURSE) : SUMMER - 2018
SUBJECT: PHARMACEUTICAL MICROBIOLOGY (Including Immunology) – II

Day : **Friday**
Date : **04/05/2018**

Time : **02.00 PM TO 05.00 PM**
Max. Marks : **80**

S-2018-3961

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) Compare Cup-Plate and Turbidometric Assay methods.
 - b) How to evaluate efficacy of a preservative?
 - c) Enlist commercial probiotics products.
 - d) What is TOC and COD?
 - e) Draw a typical fermentation protocol.
 - f) Mention microbial limits for Pure Water and Dried Aluminum Hydroxide.
- Q.2** a) How to isolate and screen commercial micro-organisms? **[08]**
b) Write various stages of downstream processing and discuss them. **[07]**
- Q.3** a) Discuss properties, mechanism and significance of probiotics. **[08]**
b) How MIC of an antibiotics is determined? **[07]**
- Q.4** Write short notes on **ANY THREE** of the following: **[15]**
- a) Trickling Filters
 - b) Microbial Limit Tests
 - c) Tray Fermenter
 - d) Microbial Assay of Antibiotics

SECTION – II

- Q.5** Answer **ANY FIVE** of the following: **[10]**
- a) Classify types of immunity.
 - b) Give examples of hypersensitivity.
 - c) Differentiate between Active and Passive Immunity.
 - d) Write significance of Booster Dose.
 - e) What is a Hapten?
 - f) Define and explain vaccines.
- Q.6** a) Explain various immunological preparations and products. **[08]**
b) Describe Antigen-Antibody reactions and their significance. **[07]**
- Q.7** a) Discuss Immediate Hypersensitivity in detail. **[08]**
b) How monoclonal antibodies are produced? **[07]**
- Q.8** Write short notes on **ANY THREE** of the following: **[15]**
- a) BCG Vaccines
 - b) Complement System
 - c) Structure of Immunoglobulin
 - d) Immunofluorescence

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