

S.Y.B.PHARM. SEMESTER-IV (CBCS - 2015 COURSE) :
SUMMER - 2018
SUBJECT: PHARMACEUTICAL MICROBIOLOGY – II

Day : **Tuesday**
Date : **24/04/2018**

S-2018-3922

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 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.
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SECTION – I

- Q.1** Answer **ANY FIVE** of the following: **[10]**
- a) Which micro-organisms are used in the assays of Erythromycin and Nystatin?
 - b) Enlist various strain improvement methods.
 - c) Define COD and BOD.
 - d) Draw a well labeled diagram of Trickling Filters.
 - e) Give the microbial limits for Lactose and pure water.
 - f) Define and explain primary metabolites.
- Q.2** a) How to design and monitor fermentation process? **[06]**
b) Write the significance of MIC. How it is determined? **[04]**
- Q.3** a) Explain post fermentation processing in detail. **[06]**
b) How to assess preservative efficacy? **[04]**
- Q.4** Write short notes on **ANY TWO** of the following: **[10]**
- a) Microbial assay of Vitamin B12
 - b) Fermentation Media
 - c) Assessment of Microbial Contamination

SECTION – II

- Q.5** Answer **ANY FIVE** of the following: **[10]**
- a) Classify vaccines with examples.
 - b) Define and explain Hapten.
 - c) What causes serum sickness?
 - d) Compare Active and Passive Immunity.
 - e) What is Coombs Test?
 - f) Draw and describe the Biohazard symbol.
- Q.6** a) Discuss Hybridoma Technology in detail. **[06]**
b) What is Phagocytosis? **[04]**
- Q.7** a) Explain production of bacterial vaccines in detail. **[06]**
b) Describe the structure of Antibody. **[04]**
- Q.8** Write short notes on **ANY TWO** of the following: **[10]**
- a) Probiotics
 - b) Precipitation type Ag – Ab reactions
 - c) Delayed Hypersensitivity

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