

Total No. of Questions : 6]

SEAT No. :

P3150

[Total No. of Pages : 2

[5245]-302

S.Y. B. Pharmacy (Semester - III)
PHARMACEUTICAL MICROBIOLOGY
(2013 Pattern)

Time : 3 Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) *All questions are compulsory.*
- 2) *Answers to the two sections should be written in separate books.*
- 3) *Neat diagrams must be drawn wherever necessary.*
- 4) *Figures to the right side indicate full marks.*

SECTION - I

Q1) Write in details scope and application of microbiology in pharmaceuticals and Write descriptive note on Whittaker's five kingdom classification. **[10]**

OR

Enlist the different growth requirement of bacteria and Explain in detail preservation of microbial cultures.

Q2) Answer the following (ANY FIVE): (3 mark × 5 Qs, out of 7 Qs.) **[15]**

- a) Explain reproduction by binary fission.
- b) Explain the importance of yeast and moulds.
- c) How will you detect presence of Pseudomonas in pharmaceuticals?
- d) Draw the growth curve of bacteria.
- e) Write contribution of Louis Pasteur in microbiology.
- f) Differentiate Prebiotics and Probiotics.
- g) Draw the structure of Candida.

Q3) Write a note on (ANY TWO): (5 mark × 2 Qs, out of 4 Qs.) **[10]**

- a) Cultivation of viruses
- b) Identification of specific microorganism
- c) Bacterial cell
- d) Viable count

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SECTION - II

Q4) Write in details specific and nonspecific defense mechanism of host. [10]

OR

Define antigen and antibody. Explain in detail different antigen-antibody reactions and give their significance.

Q5) Answer the following (ANY FIVE) : (3 mark × 5 Qs, out of 7 Qs) [15]

- a) Write advantages and disadvantages of phenol coefficient test.
- b) Enlist steps involved in production bacterial vaccines.
- c) Differentiate between Exotoxin and Endotoxin.
- d) Draw the structure of immunoglobulin.
- e) Write note on 'Types of immunity'.
- f) Write note on HMI and CMI.
- g) Write principal of ELISA Test.

Q6) Write a note on (ANY TWO): (5 marks × 2 Qs, out of 4 Qs.) [10]

- a) Chemical classification of disinfectant
- b) Quality control of vaccines
- c) Moist heat sterilization
- d) Microbial Virulence

