

(Following Paper ID and Roll No. to be filled in your Answer Books)

Paper ID : 150805

Roll No.

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B. PHARM.

Theory Examination (Semester-VIII) 2015-16

PHARMACEUTICAL BIO TECHNOLOGY

Time : 3 Hours

Max. Marks : 100

Section-A

1. Attempt all parts. All parts carry equal marks. Write answer of each part in short. (2×10=20)

- a) Define Antigens.
- b) What are Haptens?
- c) Difference between active and passive immunity.
- d) What do you mean by gene cloning?
- e) Write about Activase.
- f) Discuss agglutination reaction.

- g) Define Proteases.
- h) Write a note on Humoral immunity
- i) Define Immunoglobulin.
- j) Define Hamalin.

Section-B

2. Attempt any five questions from this section.

(10×5=50)

- a) Describe historical development of Antibiotics. Explain process of protoplast fusion.
- b) Write a short note on Immunological tolerances. Write a note on standardization and storage of BCG.
- c) Discuss the advantages and limitation of biotransformation reaction with examples.
- d) Describe in detail about various type of reaction cell mediated by microorganisms with examples.
- e) Explain plasmids and their role in biotechnology.
- f) Write a note on Penicillinase. How penicillin can be obtained by fermentation process?

- g) Discuss method of standardization of broad spectrum antibiotics.

Section-C

3. Attempt any two questions from this section.

(15×2=30)

- a) With the help of a neat diagram explain different parts of a fermentor and mention their functions.
- b) Discuss complete process of development of hybridoma for monoclonal antibodies.
- c) Derive Michaelis-Menten equation and discuss the role of double reciprocal plot. Explain the techniques of surface immobilization and covalent coupling.

