



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

PAPER ID : 150805

Roll No.

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B. Pharm.

(SEM. VIII) THEORY EXAMINATION, 2014-15
PHARMACEUTICAL BIOTECHNOLOGY

Time : 3 Hours]

[Total Marks : 80

Note : Attempt **all** questions.

1 Attempt any four questions : (4×4)

- A. Classify immunity and differentiate active and passive immunity.
- B. Give the pharmaceutical application of antigen-antibody reaction with special reference of RIA and ELISA.
- C. Write exhaustive note on standardization and storage of BCG.
- D. How immunological tolerances affect the efficacy of drug?
- E. Write short note on any two :
 - i. Heptanes
 - ii. Immunoglobulin
 - iii. Precipitant reaction

2 Attempt any two questions (2×8)

- A. Explain entire process for production of monoclonal antibodies with their advantages and application.
- B. Discuss the principle and procedure of gene cloning. Also give the significances of genomic DNA Libraries in the process of gene cloning.
- D. Differentiate amongst the following: Transformation, Conjugation and Transduction.

3. Attempt any four questions (4×4)

- A. Discuss the characteristic of typical fermenter.
- B. Describe various process involved in for isolation of mutants.
- C. Write a short note on historical development of antibiotics.
- D. Discuss the methods used for standardization of broad spectrum antibiotics.
- E. Enlist the various step followed in screening of soil for organism producing antibiotics.

4 Attempt any two questions (2×8)

- A. Explain various types of reaction mediated by microorganism with example.
- B. How microbial transformation is better than chemical reaction ? Also give its application in pharmacy.
- C. Writes briefly biotransformation process with special references of steroids.

5 Attempt any four questions

(4×4)

- A. Derived Michelins Menden equation and discuss the role of double reciprocal plot.
 - B. Explain the entrapment of bio catalyst in carrageenans.
 - C. Enumerates all the factors affecting enzyme kinetics.
 - D. Discuss the techniques of surface immobilization and covalent coupling.
 - E. Explain the pharmaceutical important of penicillinase and streptokinase.
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