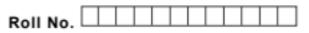


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Total No. of Pages : 02

Total No. of Questions : 22

### B.Pharma (2017 Batch) (Sem.-6) PHARMACEUTICAL BIOTECHNOLOGY-THEORY Subject Code : BP-605T M.Code : 77990

Time : 3 Hrs.

Max. Marks : 75

# INSTRUCTIONS TO CANDIDATES :

- 1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B contains THREE questions carrying TEN marks each and student has to attempt any TWO questions.
- 3. SECTION-C contains NINE questions carrying FIVE marks each and student has to attempt any SEVEN questions.

# SECTION-A

# MN FirstRanker.com Explain the following terms in brief :

- 1. Genetic engineering
- 2 Biosensors
- Recombinant DNA technology 3.
- Cloning vectors 4.
- 5. Hypersensitivity
- Immunoglobulins 6.
- 7 Microbial transduction
- 8. Southern blotting
- 9. Penicillins
- Human plasma

1 M-77990

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## SCCTION-B

- Define Enzyme Biotechnology. Give methods of enzyme immobilization and their applications with reference to Pharmaceutical sciences.
- Explain principle and technique of recombinant DNA technology and its applications for the production of Hepatitis vaccine and Insulin hormone.
- Explain principle, methodology and applications of ELISA. Also provide a well illustrated diagram showing different types of ELISA technique.

## SECTION-C

- Explain method of production and usage of amylases and Penicillinases for pharmaceutical product development.
- Draw well illustrated diagram showing different parts and working of a Biosensor. Briefly explain potential applications of Biosensors in Pharmaceutical sciences.
- 16. What are Cloning Vectors? Highlight their features and applications in r-DNA technology.
- 17. Explain briefly the structure and functions of Major Histocompatibility Complex (MHC).
- 18. Differentiate between cellular and humoral immune responses using supporting examples.
- Define the term Mutagenesis. Explain different types of mutations and utility of mutant organisms in Pharmaceutical industries.
- Draw well labeled diagrams showing genetic features of plasmids and transposons. Compare genetic features of prokaryotes and eukaryotes using suitable examples.
- 21. Provide detailed note on design and working of a large scale fermenter. What are general requirements and methods used in fermentation technology?
- 22. How do you collect, process and store whole human blood?

## NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

2 M-77990

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