Roll No. | | | | | | | | | | | | |

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

Explain the following terms in brief :

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

SCCTION-B

11. Define Enzyme Biotechnology. Give methods of enzyme immobilization and their applications with reference to Pharmaceutical sciences.

12. Explain principle and technique of recombinant DNA technology and its applications for the production of Hepatitis vaccine and Insulin hormone.

13. Explain principle, methodology and applications of ELISA. Also provide a well illustrated diagram showing different types of ELISA technique.

SECTION-C

14. Explain method of production and usage of amylases and Penicillinases for pharmaceutical product development.

15. 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.

19. Define the term Mutagenesis. Explain different types of mutations and utility of mutant organisms in Pharmaceutical industries.

20. 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.