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Total No. of Pages : 02

Total No. of Questions : 10

B.Pharma (2011 to 2016) (Sem.-7)
PHARMACEUTICAL BIOTECHNOLOGY
Subject Code : BPHM-701
M.Code : 71753

Time : 3 Hrs.

Max. Marks : 80

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of FIFTEEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt ANY FOUR questions.
3. SECTION-C contains FOUR questions carrying TEN marks each and students have to attempt ANY THREE questions.

SECTION-A

1. Define with examples :

- a. Biotechnology
- b. Fermenter
- c. Protease
- d. Enzymes
- e. Culture
- f. Antigen
- g. Cloning
- h. Transduction
- i. Biotransformation
- j. Antibodies



Distinguish between :

- k. Batch culture and continuous culture
- l. active and passive immunity
- m. Toxin and Toxoid
- n. Vaccine and antibiotics
- o. Penicillins and tetracyclines

SECTION-B

- 2. Explain the principles of immune system.
- 3. How Humulin is prepared by genetic recombination?
- 4. Explain the factors influencing rate of mutation.
- 5. Enumerate designing of biotransformation processes.
- 6. Highlight the techniques of immobilization of enzymes.

SECTION-C

- 7. How bacteria is immobilized? Explain streptokinase.
- 8. Explain the isolation of streptomycins by fermentation technology.
- 9. Give construction and working including controlling of parameters of a fermenter.
- 10. Write short notes on :
 - a. Hepatitis B vaccine
 - b. Vitamin B12

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.