

B.Pharm. CBCS Pattern Semester-VI
BP605T - Pharmaceutical Biotechnology

P. Pages : 3

Time : Three Hours



GUG/W/23/14141

Max. Marks : 75

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- Notes : 1. Illustrate your answers wherever necessary with the help of neat sketches.
2. All questions are compulsory.

- 1. Multiple Choice Questions (Answer all questions) **10x1**
=20**
- 1) Humulin, a genetically engineered insulin was produced for the first time by-----
 - a) Biocon India Ltd.
 - b) Glaxo
 - c) Eli-lilly and Company
 - d) Cipla

 - 2) Adsorption of cell or enzyme on supporting medium is due to-
 - a) Electrostatic force
 - b) Hydrophobic interaction
 - c) Bonding to specific ligand
 - d) All of these

 - 3) The first developed biosensor was used for the detection of.
 - a) Hydrogen
 - b) Oxygen
 - c) Ammonia
 - d) Carbon-dioxide

 - 4) An element that converts one form of energy into another measurable signal is called as-
 - a) Transducer
 - b) Bioreceptor
 - c) Electronics
 - d) Amplifier

 - 5) The first β -lactamase enzyme produced from-
 - a) B. Subtilis
 - b) S. Aureus
 - c) S. Pyrogenesd
 - d) E. Coli

 - 6) The role of amylase in paper industry is-
 - a) To reduce the viscosity of starch by partial hydrolysis.
 - b) To increase the viscosity of starch.
 - c) As a desizing agent.
 - d) None of the above

 - 7) Vector that can propagate in two different host species is called as-
 - a) λ phage
 - b) Shuttle
 - c) Plasmid
 - d) Cosmid

 - 8) The predominant hypersensitivity reaction involving IgE is
 - a) Type I
 - b) Type II
 - c) Type III
 - d) Type IV

 - 9) Yellow fever virus can be attenuated by serial passage on cultures of
 - a) Embryonated eggs
 - b) Tissues
 - c) Chick embryo tissue
 - d) Pig embryo tissue

- 2. Solve any two.** **2x10**
=20
- 1) Define fermentation. Give construction & working of typical Bioreactor.
 - 2) Define & Classify Hypersensitivity reaction. Explain Type I reaction in detail.
 - 3) Explain the production of Monoclonal antibodies by hybridoma technology.

- 3. Solve any seven.** **7x5**
=35
- 1) Explain the method of covalent bonding in immobilization.
 - 2) Explain the various components used in biosensor.
 - 3) Briefly discuss the steps involved in PCR.
 - 4) Describe the method of preparation of bacterial vaccine.
 - 5) Describe Frameshift mutation.
 - 6) Classify vector. Add a note on artificial vector.
 - 7) Give account on anticoagulant used in preparation of blood components.
 - 8) Explain method of preparation of insulin by rDNA technology.
 - 9) What do you mean by biotechnology? How it is used in environmental monitoring?
