

## **Third year, Sem V-Pharmaceutical Biotechnology, CBCS,**

### **Sample Questions**

- 1. Which of the following convey the longest lasting immunity to an infectious agent?**
  - Naturally acquired passive immunity
  - Artificially acquired passive immunity
  - Naturally acquired active immunity
  - Passive immunity
- 2. The specificity of an antibody is due to**
  - its valence
  - The heavy chains
  - The Fc portion of the molecule
  - The variable portion of the heavy and light chain
- 3. In which of the technique enzyme and polymer are bridged by the use of bi-functional reagent**
  - Covalent cross-linking
  - Adsorption
  - Physical entrapment
  - Microencapsulation
- 4. In which of the technique enzyme and polymer are bridged by the use of bi-functional reagent**
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- 5. In which of the technique enzyme and polymer are bridged by the use of bi-functional reagent**
  - Covalent cross-linking
  - Adsorption
  - Physical entrapment
  - Microencapsulation
- 6. low molecular weight compounds cannot be immobilized by**
  - Adsorption
  - Covalent cross-linking
  - Entrapment
  - Microencapsulation
- 7. While constructing the fermenter, which of the following is not required**
  - High-speed Agitation and Aeration system
  - Temperature control system
  - pH control system
  - Sample facilities

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- 8. Which of the following cells is involved in cell-mediated immunity?**
- a) Leukaemia
  - b) T cells
  - c) Mast cells
  - d) Thrombocytes
- 9. Which of the following protects our body against disease-causing pathogens?**
- a) Respiratory system
  - b) Immune system
  - c) Digestive system
  - d) Respiratory system
- 10. In agglutination reactions, the antigen is a.....  
in precipitation reactions, the antigen is a.....**
- a. whole cell/soluble molecule
  - b. Soluble molecule/whole cell
  - c. Bacterium/virus
  - d. Protein/carbohydrates
- 11. Human growth hormone (hGH) is .....**
- a. Single chain polypeptide
  - b. Single chain peptide
  - c. Double chain polypeptide
  - d. Double chain peptide
- 12. A restriction enzyme cuts DNA...**
- a. at random sites
  - b. at nucleotides
  - c. into single nucleotide
  - d. at specific site
- 13. The deliberate modifications of an organism's genetic information by directly changing its nucleic acid content is a subject matter of....**
- a. genetic engineering
  - b. population genetics
  - c. microbiology
  - d. protein engineering

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**14. What is the normal role of restriction endonucleases in bacterial cells?**

- a. To degrade the bacterial chromosome into small pieces during replication
- b. To degrade invading phage DNA
- c. To produce RNA primers for replication
- d. To produce c-DNA

**15. Plasmid consist of.....**

- a. plasmid vector carrying  $\lambda$  phage's cos site
- b. plasmid vector carrying  $\lambda$  attachment ( $\lambda$  att) site
- c. plasmid vector carrying origin of replication of  $\lambda$  phage only
- d. plasmid vector carrying origin of replication of plasmid only

**16. Cleavage site of type III restriction endonucleases is ..... bp away from recognition site**

- a. 30-34
- b. 22-26
- c. 20-22
- d. 15-18

**17. Which one of the following is the most stable vector?**

- a. YEp
- b. YRp
- c. YAC
- d. Yip

**18. A cytokine that stimulates the activity of B and T cells is**

- a. lymphotoxin
- b. interleukin-2
- c. interleukin-1
- d. interleukin-3

**19. Transgenic plants with increased tolerance to aluminum have been produced by making plants that**

- a. secrete phytosiderophores into the soil
- b. make more metal-binding peptides like phytochelatins
- c. bind aluminum to the cell wall
- d. secrete citrate into the soil

**20. Plants containing genes encoding cytokines and blood clotting factors are used in**

- a. nutrition improvement
- b. pharmaceutical production
- c. vaccine production
- d. textile production