

**Bharati Vidyapeeth's College of Pharmacy, Navi Mumbai**

**T. Y. B. Pharm (Semester V) (CBCS syllabus) 2020-21**

**Biotechnology Practice Questions**

1. Choose the incorrect statement for second DNA strand synthesis.
  - a) The RNA: DNA complex is treated with the enzyme RNase H and DNA pol
  - b) The enzyme RNase H is responsible for nicking the RNA strand and leaving free 3' hydroxyl ends
  - c) These RNA fragments can be used as primers
  - d) There is no portion of RNA left attached to the DNA strand
  
2. What would not happen if the RNA strand is completely removed from RNA: DNA hybrid?
  - a) There are no chances of the synthesis of the second DNA strand
  - b) Chance complementarity would take place
  - c) Hairpin structure would be formed
  - d) Hairpin structure is formed is not the final structure
  
3. The loop region is single stranded. It can be cleaved by using which enzyme?
  - a) Exonuclease
  - b) S1 nuclease
  - c) RNase H
  - d) DNase
  
4. What are xenobiotics?
  - a) Another form of antibiotics
  - b) A form of nutrient
  - c) Nutrients which kill the gut harmful microbes
  - d) Anything that is not nutrients and enters the body through different routes
  
5. What is the active form of salicylic acid?
  - a) Sialic acid
  - b) Salic acid
  - c) Salicylic acid
  - d) Salicycle acid
  
6. What is the inactive form of Codeine?
  - a) Codene
  - b) Codane
  - c) Morphine
  - d) Poppy
  
7. What are soft drugs?
  - a) Drugs given to babies
  - b) Chemical drugs which are already found in the body
  - c) Nutrients which kill the gut harmful microbes
  - d) Anything that is not nutrients and enters the body through different routes
  
8. The enzymes are divided into two categories, these are \_\_\_\_\_ and \_\_\_\_\_
  - a) Acidic drug metabolizing and basic drug metabolizing
  - b) Present in the liver and not present in the liver
  - c) Microsomal and non-microsomal
  - d) There is no such division

9. Microsome are selective to \_\_\_\_\_
- Water-soluble drugs
  - Lipid soluble drugs
  - Acidic drugs
  - Basic drugs
10. Where are non-microsomal enzymes present?
- In the Golgi apparatus
  - Inside lysosomes
  - In the cytoplasm in soluble form
  - In oxysomes
11. Following are the Phase I reactions except \_\_\_\_\_
- Oxidative reactions
  - Hydrolytic reactions
  - Reductive reactions
  - Sulphide reactions
12. Restriction enzymes were discovered by
- Smith and Nathans
  - Alexander Fleming
  - Berg
  - None
13. Bacteria protect themselves from viruses by fragmenting viral DNA with
- Ligase
  - Endonuclease
  - Exonuclease
  - Gyrase
14. Which of the following is the quality of improved transgenic basmati rice?
- Gives high yield but no characteristic aroma
  - Gives high yield and is rich in vitamin A
  - Does not require chemical fertilizers and growth hormones
  - Resistant to insects and diseases
15. Excision and insertion of a gene is called
- Biotechnology
  - Genetic engineering
  - Cytogenetics
  - Gene therapy
16. The expression of a transgene in the target tissue is identified by a
- Transgene
  - Promoter
  - Enhancer
  - Reporter
17. \_\_\_\_\_ is used as a vector for cloning into higher organisms
- Retrovirus
  - Baculovirus
  - Salmonella typhimurium
  - Rhizopus nigricans

18. Which bacterium is used in the production of insulin by genetic engineering?
- Saccharomyces
  - Rhizobium
  - Escherichia
  - Mycobacterium
19. Which is not the method for producing immobilized enzymes with multifunctional reagents?
- Enzymes are adsorbed on the surface active support followed by intermolecular cross linking
  - Functional groups are introduced on the support to react co-valently with enzymes
  - Enzymes are cross linked intermolecularly
  - Enzymes are cross linked intermolecularly
20. The immobilization technique involving physical method is
- covalent bond formation dependent
  - non-covalent bond formation dependent
  - both (a) and (b)
  - ionic bond formation dependent
21. Various techniques are available for determining the effective diffusivity of solute in gel. Thin disk method uses
- a diffusion cell with two compartments divided by a thin gel
  - a diffusion cell with two compartments
  - a diffusion cell with two compartments plus by a thin gel
  - a diffusion cell with two compartments multiply by a thin gel
22. The most commonly employed cross-linked polymer is the
- polyacrylamide gel
  - collagen
  - celluloses
  - cation exchange resin
23. The immobilized technique involving chemical method is
- covalent bond formation dependent
  - non-covalent bond formation dependent
  - both (a) and (b)
  - ionic bond formation dependent
24. Naturally acquired active immunity would be most likely acquired through which of the following processes?
- vaccination
  - drinking colostrum
  - natural birth
  - infection with disease causing organism followed by recovery.
25. 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
  - All of these