



SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

Coimbatore – 35



DEPARTMENT OF BIOMEDICAL ENGINEERING

Unit I – Introduction to Biochemistry MCQ

1. Which one of the following is a membrane less organelle?
a. nucleus b. nucleolus c. endoplasmic reticulum d. mitochondria.
2. The nature of the lipid bilayer is
a. hydrophilic b. hydrophobic c. amphipathic d. lipophilic
3. The cell wall is made up of
a. glucose b. cellulose c. sucrose d. fructose
4. The suicidal bag of the cell is
a. mitochondria b. nucleus c. lysosome d. endoplasmic reticulum
5. Peroxisomes are involved in the biosynthesis of which of the following?
a. protein b. lipid c. carbohydrate d. nucleic acid
6. The site of the light-dependent photosynthesis reactions in chloroplasts is
a. inner membrane b. outer membrane c. matrix d. thylakoid membrane
7. Which of the following is synthesised and processed by Endoplasmic reticulum?
a. protein b. vitamin c. nucleic acid d. lipid
8. The organelle which exchange energy with environment is
a. mitochondria b. endoplasmic reticulum c. nucleus d. peroxisomes
9. Cell homeostasis is maintained by
a. nucleus b. cell membrane c. mitochondria d. lysosome
10. The physical nature of cytoplasm is
a. colloidal b. solid c. liquid d. vacuum



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11. Which is the most common acid produced in the human body?
a. HCl b. H_2SO_4 c. H_2CO_3 d. HNO_3
12. The range of pH scale is
a. 1 to 14 b. 0 to 14 c. 0 to 7 d. 1 to 7
13. A buffer pair (HA/A⁻) has a pK_a of 7.4. At a blood pH of 7.4, the concentration of HA is
a. 1/100 that of [A⁻] b. 1/10 that of [A⁻] c. equal to that of [A⁻] d. 10 times that of [A⁻]
14. What will be the ratio of ($[\text{HPO}_4^{2-}]/[\text{H}_2\text{PO}_4^-]$) of phosphate buffer at pH 7.4 and pK_a 6.8 in blood.
a. 2 b. 3 c. 4 d. 5
15. Most of the water in the human body is present in
a. intracellular fluid b. total extracellular fluid c. plasma d. interstitial fluid
16. Which type of formed elements are high in number in blood?
a. leucocytes b. erythrocytes c. thrombocytes d. lymphocytes
17. What is the nature of normal urine?
a. strongly acidic b. strongly basic c. slightly alkaline d. slightly acidic
18. Identify the most important buffer system in blood plasma from the following:
a. bicarbonate buffer b. phosphate buffer c. protein buffer d. hemoglobin buffer
19. Which forms of hemoglobin have more affinity towards hydrogen ions?
a. oxyhaemoglobin b. deoxyhaemoglobin c. cyanohaemoglobin d. methyhaemoglobin
20. Excretion of acidic urine _____ pH in extracellular fluid.
a. decreases b. increases c. does not alter d. both a and b