

Course Title: Biochemistry I  
Micro 2<sup>nd</sup>  
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Max Marks: 30

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Note:

There are 20 MCQs and 10 match column questions, each carry ONE mark with grand total of 30 marks.  
Choose the appropriate option and write in the ANSWER section.  
ATTEMPT all questions.

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1. The general structure of all amino acids are same except for  
\_\_\_\_\_

- a) Lysine
- b) Glycine **B**
- c) Proline
- d) Alanine

2. Macromolecule found in cell membrane that helps in signaling is:

- a) Carbohydrate
- b) Protein. **(B)**
- c) Lipid
- d) Nucleic acid

3. How is the secondary structure of a protein stabilized?

- a) Van der wall forces
- b) Hydrogen bonding **B**
- c) Covalent bond
- d) Hydrophobic bond

4. The uprights of double helix DNA consist of:

- a) Pentose sugar
- b) Phosphate group
- c) Both a and b. **C**
- d) Only nitrogenous bases

5. Which of the following is an essential amino acid?

- a) Cysteine
- b) Valine **B**
- c) Glutamine
- d) Asparagine

6. A nucleotide is formed of which of the following units?

- a) Nitrogen base and nucleoside
- b) Nucleoside and phosphate
- c) Nucleoside and sugar
- d) Sugar and phosphate. **D**

7. Which statement is correct about Hemoglobin molecule?

- a) Made up of two alpha helix and one beta sheets.
- b) Made up of one alpha helix and two beta sheets.
- c) Made up of two alpha helix and two beta sheets. C
- d) Made up of one alpha helix and one beta sheets.

8. mRNA consist about\_\_\_% of the total RNA present in cytoplasm.

- a) 4-10%
- b) 5-10%. B
- c) 7-10%
- d) 8-10%

9. All are example of Alpha helix except:

- a) Collagen
- b) Myosin
- c) Fibrin.
- d) Proline. D

10. Which among the following is not non-essential amino acid?

- a) Serine
- b) Asparagine
- c) Lysine B
- d) Alanine

11. To which of the following does thymine form hydrogen bonds in DNA?

- a) Adenine
- b) Thymine
- c) Cytosine
- d) Guanine

12. What is true about peripheral protein?

- a) They are really stuck in membrane
- b) They are hardly to remove from plasma membrane.
- c) They can be easily removed from plasmalema. C
- d) Both a and b

13. Choose the incorrect statement

- a) Protein helps in the transportation of oxygen
- b) Some Proteins not supports in the body defense against infection. B
- c) Enzymes which are biological catalyst, are proteins.
- d) Some protein helps in the movement of muscles

**14. Which of the following statements about amino acids is correct?**

- a) Amino acids are uncharged at neutral pH
- b) Amino acids are classified according to the structures and properties of their side chains
- c) Amino acids in proteins are mainly in the D-configuration
- d) Twenty four amino acids are commonly used in protein synthesis

**15. Alpha helix protein is formed by H-bonding between C-O and NH<sub>2</sub> group of the amino acids situated at:**

- a) 2- residues ahead in linear sequence
- b) 3- residues ahead in linear sequence
- c) 4- residues ahead in linear sequence C
- d) 5- residues ahead in linear sequence

**16. The two polynucleotide strands of DNA arranged in\_\_\_manner to each other.**

- a) Antiparallel
- b) Opposite
- c) Both a and b. C
- d) None

**17. Protein obtained by a process, without cleavage of peptide bonds**

- a) Secondary protein
- b) Primary protein. B
- c) Conjugated protein
- d) Simple protein

**18. Pyrimidine molecule include all nitrogenous base except:**

- a) Uracil
- b) Thymine
- c) Guanine. C
- d) Cytosine

**19. Stabilizing factor of primary structure of a protein is:**

- a) Peptide bond A

- b) Hydrogen bond
- c) Covalent bond
- d) Disulphide bond

20. The two strands in a DNA molecule is joined by;

The two

- a) Covalent bond
- b) Ionic bond
- c) Hydrogen bond. C
- d) Phosphodiester bond

Match column A with column B and write the correct option (only correct letter) in column C

Sr No	A		B	C
21	Carrier protein	A	Dipolar	G
22	Hydrophilic amino acid	B	Unit model	F
23	Zwitterion	C	Nucleotides	A
24	Purine	D	Lysine	E
25	Hydrophobic amino acid	E	Energy required	I
26	Keratin	F	Aspartic acid	H
27	Danielli – Davson Model	G	Adenine	J

28	Deoxyribonucleic acid	H	Nails	C	
1	B	11	A	21	G
2	B	12	C	22	F
3	B	13	B	23	A
4	C	14	B	24	E
5	B	15	C	25	I
6	D	16	C	26	H
7	C	17	B	27	J
8	B	18	C	28	C
9	D	19	A	29	B
10	B	20	C	30	D
29	Robertson model	I	Methionine	B	
30	Essential amino acid	J	Sandwich model	D	

# ANSWERS