

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--

**Question Paper Code: 53113**

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Third Semester

Biomedical Engineering

15UBM303 - BIOCHEMISTRY

(Regulation 2015)

Duration: One hour

Maximum: 30 Marks

PART A - (6 x 1 = 6 Marks)

**(Answer any six of the following questions)**

1. Starch is
  - (a) Disaccharide
  - (b) Oligosaccharide
  - (c) Polysaccharide
  - (d) None of these
2. The hydrolysis products of sucrose are
  - (a) Maltose
  - (b) Glucose only
  - (c) Glucose & Fructose
  - (d) Fructose only
3. Trimalmitin belongs to the category of
  - (a) Proteins
  - (b) Lipids
  - (c) Enzymes
  - (d) None of the above
4. Nucleotides are condensation products of nucleosides with
  - (a) Phosphoric acid
  - (b) Perchloric acid
  - (c) Sulphuric acid
  - (d) Nitric acid
5. Which of the following bases is not present in DNA?
  - (a) Adenine
  - (b) Guanine
  - (c) Uracil
  - (d) Cytosine

6.  $\alpha$ -helix refers to
- |                                    |                                      |
|------------------------------------|--------------------------------------|
| (a) Primary structures of proteins | (b) Secondary structure of proteins  |
| (c) Tertiary structure of proteins | (d) Quaternary structure of proteins |
7. Nucleic acids are polymers of
- |                            |                 |
|----------------------------|-----------------|
| (a) Nucleotides            | (b) Nucleosides |
| (c) Nuclei of heavy metals | (d) Proteins    |
8. Invert sugar is
- |                                     |                                      |
|-------------------------------------|--------------------------------------|
| (a) A variety of cane sugar         | (b) Optically inactive form of sugar |
| (c) Mixture of glucose and fructose | (d) Mixture of Glucose and Galactose |
9. The non-proteinous substance which certain enzymes require for their activity are called
- |                |                |
|----------------|----------------|
| (a) Catalysts  | (b) Inhibitors |
| (c) Co-Enzymes | (d) Epimers    |
10. Which of following is not a glyceride?
- |                   |           |
|-------------------|-----------|
| (a) Lipids        | (b) Fats  |
| (c) Phospholipids | (d) Soaps |

PART – B (3 x 8= 24 Marks)

**(Answer any three of the following questions)**

11. Explain in detail the Chemical reactions in metabolic processes. (8)
12. Explain the biological nitrogen fixation mechanism with flow chart. (8)
13. Write notes on: (i) Monosaccharides (ii) Disaccharides (iii) Polysaccharides (iv) Mucopolysaccharides. (8)
14. Describe the structure and classification of aminoacids along with their structures. (8)
15. Explain in detail the “Mechanism of Enzyme action”. (8)