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BTH 401

First Semester M.Sc. Degree Examination, December 2018

BIOTECHNOLOGY

(CBCS)

Biochemistry and Biophysics

Time : 3 Hours

Max. Marks : 70

PART – A

Write short notes on **any ten** of the following (**not exceeding 1 page each**). **(10×2=20)**

1. a) Denaturation of proteins.
- b) Lipoproteins.
- c) Anaplerosis.
- d) Decarboxylation.
- e) Myoglobin.
- f) Protein folding.
- g) Fibrous proteins.
- h) siRNA.
- i) Pyrimidines.
- j) Coenzymes.
- k) Liposomes.
- l) Thiamine.

PART – B

Write explanatory notes on **any five** of the following (**not exceeding 3 pages each**). **(5×6=30)**

2. Beta oxidation and the role of carnitine.
3. Composition and functions of phospholipids.
4. Types of RNA, their function and salient features.
5. Primary and secondary structure of proteins with suitable example.
6. Classify amino acids based on nature of the side chains with examples.
7. Isomers of monosaccharides with examples.
8. Biological functions of fat soluble vitamins.

P.T.O.



PART – C

Answer **any two** of the following (**not** exceeding **7** pages **each**). **(2×10=20)**

9. Explain in detail various steps involved in gluconeogenesis with examples.
 10. Describe metabolism of aromatic amino acids.
 11. Describe in detail classification of lipids. Add a note on structure and properties of prostaglandins.
 12. Explain denovo synthesis of purines. Add a note on salvage pathway.
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