



(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 154316

Roll No.

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B. Tech.

(SEM. III) (ODD SEM.) THEORY EXAMINATION, 2014-15 BIOCHEMISTRY

Time : 3 Hours]

[Total Marks : 100

- 1 Write short notes on : (Attempt any four) **4X5=20**
- (a) Ketone bodies
 - (b) Pentose Phosphate Pathway
 - (c) Ramachandran Plot
 - (d) Classification of Carbohydrates
 - (e) β -oxidation
 - (f) Buffers and Buffering Mechanism
- 2 Attempt any two: **2X10=20**
- (a) Explain in detail about the structure and isomerism in carbohydrates.
 - (b) What are simple and compound lipids? How they are different from derived lipids?
 - (c) How waste amine group goes to urea cycle through deamination and transamination.

- 3** Attempt any two: **2X10=20**
- (a) Give urea cycle with its significance.
 - (b) Differentiate between denovo and Salvage pathway.
 - (c) What are the essential amino acids. Give their name with structure.
- 4** Write short notes on : (Attempt any four) **4X5=20**
- (a) Saturated and Unsaturated fatty acids
 - (b) Gluconeogenesis
 - (c) Disorders of Lipid metabolism
 - (d) Mutarotation
 - (e) Ionization of water
 - (f) Hemoglobin buffer system
- 5** Attempt any two: **2X10=20**
- (a) Describe the formation of pyruvate through carbohydrates metabolism from glucose with regulation.
 - (b) Discuss in brief about the functions of multienzyme complexion Fatty acid synthesis.
 - (c) Give the biosynthetic equation of one each ketonic and one glucogenic amino acid.
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