

II B.Tech I Semester(R05) Supplementary Examinations, May/June 2010
BIO CHEMISTRY
(Bio-Technology)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Write short notes:

(a) Bacterial Lipopolysaccharides.

(b) Lectins and the oligosaccharide ligands that they bind. [16]

2. How the glucose level of blood is maintained in animals? Discuss the role of Hormones in sugar regulation in the animal body. [16]

3. What is fermentation Explain anaerobic degradation of glucose to obtain energy. [16]

4. Explain the reduction of atmospheric nitrogen by Nitrogen- Fixing Bacteria to Yield ammonia. [16]

5. What is the key intermediate in the synthesis of aromatic amino acids? Sketch the biosynthesis of tryptophan from chorismate, how it is regulated? [16]

6. (a) Define the term lipid. How are they extracted from a natural source? What are their general characteristic features?

(b) What are storage lipids? What is their composition? Sketch their physiological functions. [8+8]

7. What are the major electron-carriers in the oxidation of fuel molecules. Give their structures and role. [16]

8. Discuss the C_4 -pathway of photosynthesis and its significance. [16]
