

II B.Tech I Semester Supplementary Examinations, November 2005
BIO-CHEMISTRY
(Bio-Medical Engineering)

Time: 3 hours

Max Marks: 80

Answer any FIVE Questions
All Questions carry equal marks

1. State and explain with examples what is happening to electrons and energy in each galvanic cell and electrolytic cell. [16]
2. What is the theory of lubrication? Explain how surface tension plays a role in the performance of lubricating oils and hydraulic fluids? What is surface tension and what effect does it have? [16]
3. Write an essay on biosynthesis of protein in eukaryotic cell and write a note on pre-and post-translational modification of intracellular proteins. [16]
4. Why are the plots for P^H versus enzyme activity and temperature versus enzyme activity similar? What is happening in each case? Explain. [16]
5. What synthesis and degradation pathways are involved in metabolism of carbohydrates? [16]
6. Describe the distributions of ions and electrical charge on the inside and outside of the membrane of a resting neuron. How is this distrubtion of ions and charge maintained? [16]
7. What are the chemical composition of blood plasma? How does it different from lymph or tissue fluid? [16]
8. Describe the process for seperation of serum protein by electrophonesis? [16]
