

GUJARAT TECHNOLOGICAL UNIVERSITY**B. PHARM. - SEMESTER – VI • EXAMINATION – WINTER 2012****Subject code: 260003****Date: 31/12/2012****Subject Name: Pharmaceutical Chemistry – VII (Biochemistry)****Time: 02.30 pm - 05.30 pm****Total Marks: 80****Instructions:**

1. Attempt any five questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Write in brief about various oxidation reaction occur during fatty acid synthesis or metabolism. **06**
(b) Discuss in detail about electrophoresis. **05**
(c) Give detail account on operon concept. **05**
- Q.2** (a) Discuss about respiratory chain with its role as energetic. What are the respiratory chain inhibitors? **06**
(b) Explain with suitable example about different enzymes and coenzymes involved in biological oxidation and reduction reactions. **05**
(c) Write a note on oxidative phosphorylation. **05**
- Q.3** (a) How nitrogen is balanced in human body? Write in brief about metabolism of ammonia and nitrogen containing monomers. **06**
(b) To which specialized products aminoacids get converted? How? **05**
(c) Explain urea cycle with its metabolic disorders. **05**
- Q.4** (a) Enlist sulphur containing amino acids with their importance. Give metabolic pathway of any one. **06**
(b) What are the importances of bile pigments in human body? How it is formed and what are the implications of its metabolic disorders. **05**
(c) Write a note on biosynthesis and utilization of ketone bodies. **05**
- Q.5** (a) Give detail account on DNA replication in prokaryotes with role of different enzymes involved in it. **06**
(b) Write a note on isolation and purification of nucleic acid. **05**
(c) Write in detail about different chromatographic techniques with their importance in biochemistry. **05**
- Q. 6** (a) Give detail account on organization of genetic material in human genome. How it can be altered or rearranged? **06**
(b) Write a note on components and inhibitors of protein biosynthesis. **05**
(c) Write a note on polymerase chain reaction. **05**
- Q. 7** (a) Discuss in detail about purine biosynthesis. Explain purine nucleotide inter conversion. **06**
(b) Write a note on importance of water and water balance in human body. **05**
(c) Give detail account on biochemical importance and absorption of calcium. Discuss about its metabolic disorders. **05**
