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GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm - SEMESTER-IV EXAMINATION - WINTER - 2016 Subject Code: 2240003 Date: 26/10/2016 **Subject Name:** Pharmaceutical Chemistry-V (Biochemistry-II) Time: 10:30 AM to 01:30 PM **Total Marks: 80 Instructions:** 1. Attempt any five questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. 0.1 Draw the Krebs-Henseleit cycle and enlist disorders of the cycle. **06** (a) **(b)** Explain Southern Blotting technique as a tool of analysis in Biochemistry. 05 Define Protein and classify proteins based on chemical nature. 05 (c) **Q.2** Explain metabolism of Methionine. 06 (a) Draw well labeled diagram of Replication and explain role of different DNA 05 **(b)** Polymerase enzymes in replication of eukaryotic cell. Define genetic code, Explain its characteristics. 05 (c) 0.3 (a) Explain about enzymes involved in Biological oxidation. 06 Explain any two mechanism of Oxidative phosphorylation. **(b)** 05 Explain Electrophoresis as a tool of Biochemistry. 05 (c) 0.4 (a) Write a note on mutation and its consequences. 06 Write a note on post transcriptional modifications. 05 **(b)** Enlist the salient feature of transamination in amino acid metabolism. 05 (c) **Q.5** (a) Explain in brief with diagram about Polymerase chain reaction. 06 Explain about excision-repair of DNA. **(b)** 05 Write application of genetic engineering. 05 (c) **Q.** 6 (a) Explain Lactose metabolism in *E. coli*. 06 Write in detail about structure of protein. 05 **(b)** Explain the characteristics of amino acid. (c) 05

compound. Explain synthesis of Inosine monophosphate in liver. **(b)** Explain inhibitors of oxidative phosphorylation. (c)

Define Bioenergetics and explain ATP as most important high energy

06

05

05

Q.7

(a)
