**Q.7** 

(a)

(b)

(c)

GUJARAT TECHNOLOGICAL UNIVERSITY **B.Pharm-SEMESTER-VI- (OLD SYLLABUS) EXAMINATION – SUMMER-2015** Subject Code: 260003 Date: 05/05/2015 **Subject Name: Pharmaceutical Chemistry-VII (Biochemistry)** Time: 10:30 a.m. to 1:30 p.m. **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) Describe in detail about beta oxidation of fatty acids. 06 Explain about ketogenesis pathway and write its signifinace. (b) 05 What is Operon? Write a note on Inducible Operon. (c) 05 **Q.2** (a) Discuss about purine biosynthesis pathway and disorders of purine **06** metabolism. (b) Give examples of sulphur containing aminoacids & enlist metabolic 05 pathway of any one. Write a note on Chromatography. 05 (c) **Q.3** (a) Draw schematic diagram of urea cycle with structural formula and 06 explain the regulation & disorder of this cycle. (b) What is bile pigment? How it is formed? Write its significance and 05 metabolic disorders. Write a note on Genetic Code. 05 (c) **Q.4** What is gene? Give details on DNA replication & signify the **06** (a) different enzymes involved in it. (b) What is transgenic organism? Write a note on Genetic engineering 05 with applications. Write the name of the specialized products produced from amino 05 (c) acids & enlist the biosynthetic pathway of Porphyrin. **Q.5** What is oxidative phosphorylation? Write in details about 06 (a) respiratory chain. Write notes on enzymes involved in biological oxidation. (b) 05 Write about physiological functions and deficiency disorders of (c) 05 following any two minerals. i) Calcium. ii) Iodine. iii) Potassium. Q. 6 Write in brief about protein synthesis & how it will be inhibited. **06** (a) Give in details how nucleic acid is isolated and purified. 05 (b) Explain the following terms. 05 (c) i) Zellweger syndrome. ii) Centrifugation. iii) HDL & LDL. iv) Transamination. v) Neucleotide.

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What are the possible causes for DNA damage & how it is repaired?

What is PCR? Write short note on PCR & its significance.

Give in details about electrophoresis techniques.

**06** 

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