Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – VI • EXAMINATION – SUMMER • 2014

Subject Code: 260003 **Date: 26-05-2014**

Subject Name: Pharmaceutical Chemistry-VII (Biochemistry)

Time: 10:30 am - 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.**

Q.1	(a)	Explain in detail oxidative phosphorylation.	**06**
	(b)	Discuss biosynthesis of heme.	**05**
	(c)	Explain Krebs-Henseleit cycle along with disorders associated with it.	**05**
Q.2	(a)	Explain biosynthesis of cholesterol in detail.	**06**
	(b)	Write note on damage and repair of DNA	**05**
	(c)	Enlist nucleic acid blotting techniques and explain southern blotting technique in detail.	**05**
Q.3	(a)	What is operon ? Explain Lactose(lac) operon.	**06**
	(b)	Define ketogenesis. Give two examples of ketogenic and antiketogenic substance. Draw schematic diagram of ketogenesis.	**05**
	(c)	Write a note on bio-synthesis of fatty acids	**05**
Q.4	(a)	Write a note on purine biosynthesis and explain disorders of purine metabolism.	**06**
	(b)	Write a note on process of replication of DNA.	**05**
	(c)	Explain in brief metabolism of sulphur containing amino acids.	**05**
Q.5	(a)	Write a note on DNA amplification and its applications.	**06**
	(b)	Write a note on metabolism of ammonia.	**05**
	(c)	Write a note on β-oxidation of fatty acid.	**05**
Q. 6	(a)	Write a note on pyrimidine biosynthesis with its regulation	**06**
	(b)	Discuss biochemical role, absorption, excretion of calcium and briefly explain disease state associated with abnormalities in calcium metabolism.	**05**
	(c)	Write a note on water balance and nitrogen balance in body.	**05**
Q.7	(a)	Define or explain with example in short.(Any eight) (i)Genetic code (ii)Phenylketonuria (iii) Catabolism & Anabolism (iv)Reverse Transcription (v)Methylmalonic Acidemia (vi) Ketonuria & Ketonemia (vii) Deamination & Transamination (viii) Sudden Infant Death Syndrome (ix)Hyperbilirubinemia (x) Porphyrins (xi)Centrifugation(xii) Electrophoresis	**16**

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