Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B.PHARM.-SEMESTER–VI- EXAMINATION –SUMMER-2017

Subject Code: 260003 **Date: 03/05/2017**

Subject Name: Pharmaceutical chemistry-VII (Biochemistry)

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.**

Q.1	(a)	How cholesterol biosynthesis is regulated? Give a brief note on degradation of cholesterol and important products formed.	**06**
	(b)	Give a note on β-oxidation of fatty acids with energetic.	**05**
	(c)	Give a note on *Krebs-Henseleit* cycle and its integration with the TCA cycle.	**05**
Q.2	(a)	Discuss formation of bile pigments from appropriate porphyrin.	**06**
	(b)	Explain the components of electron transport chain. Give an account on the agents that inhibit ETC.	**05**
	(c)	Give a short note: *In vitro* Polymerase Chain reactions.	**05**
Q.3	(a)	Define oxidative phosphorylation and explain with mechanism.	**06**
	(b)	Explain: Icterus.	**05**
	(c)	Write a short note on genetic code.	**05**
Q.4	(a)	Explain the types of DNA mutation along with its repair mechanisms.	**06**
	(b)	Explain activation and utilization of methionine.	**05**
	(c)	Explain in detail about the enzyme involved in biological oxidation.	**05**
Q.5	(a)	Define and explain the following: (i) Hyperammonemia (ii) Non protein nitrogen (iii) transamination reaction of amino acids.	**06**
	(b)	Explain about inhibitors of oxidative phosphorylation.	**05**
	(c)	Give a note on water turn oven and balance.	**05**
Q. 6	(a)	Give detail note about protein biosynthesis in eukaryotes.	**06**
	(b)	Write a note of centrifugation and chromatography in biochemistry.	**05**
	(c)	Write a note on ketogenesis with its importance.	**05**
Q.7	(a)	Write a note on DNA replication.	**06**
	(b)	Explain: (i) Osteoporosis (ii) DNA vaccines	**05**
	(c)	Explain in detail Lactose operon concept.	**05**

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