

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.

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| 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 |
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| 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 |
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| 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 |
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| 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 |
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| 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 |
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| 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 |
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| 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 |
