

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM – SEMESTER – 6- EXAMINATION –WINTER - 2018**

**Subject Code: 260003****Date: 27/11/2018****Subject Name: Pharmaceutical Chemistry - VII (Biochemistry)****Time: 02:30 PM TO 05:30 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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|-------------|---|-----------|
| <b>Q.1</b>  | (a) Write a note on purine biosynthesis.  | <b>06</b> |
|             | (b) Write a note on $\beta$ -oxidation of fatty acids along with its energetics.                    | <b>05</b> |
|             | (c) Write a note on regulation of gene expression.  | <b>05</b> |
| <b>Q.2</b>  | (a) Give urea cycle. Add a note on metabolic disorders of urea cycle.                               | <b>06</b> |
|             | (b) Write a note on polymerase chain reactions.   | <b>05</b> |
|             | (c) Write a note on electrophoresis techniques used in biochemistry.                                | <b>05</b> |
| <b>Q.3</b>  | (a) Write a note on biosynthesis and utilization of ketone bodies.                                  | <b>06</b> |
|             | (b) Write a note on biosynthesis of RNA.  | <b>05</b> |
|             | (c) Give the importance of water and water metabolism in body.                                      | <b>05</b> |
| <b>Q.4</b>  | (a) Write a note on catabolism of amino acids.  | <b>06</b> |
|             | (b) Write a note on respiratory chain.  | <b>05</b> |
|             | (c) Write a note on coenzymes involved in oxidation reduction reactions.                            | <b>05</b> |
| <b>Q.5</b>  | (a) Give the importance of iron and its metabolism in body.   | <b>06</b> |
|             | (b) Write a note on DNA repair mechanism.   | <b>05</b> |
|             | (c) Write a note on isolation and purification of nucleic acids.                                    | <b>05</b> |
| <b>Q. 6</b> | (a) Write a note on Sulphur containing amino acids. Also comment on disorders associated with them. | <b>06</b> |
|             | (b) Write a note on formation and importance of bile pigments.                                      | <b>05</b> |
|             | (c) Write a note on metabolism of cholesterol.  | <b>05</b> |
| <b>Q.7</b>  | (a) Write a note on oxidative phosphorylation. Also comment on its inhibitors.                      | <b>06</b> |
|             | (b) Write a note on the specialized products formed from amino acids.                               | <b>05</b> |
|             | (c) Enlist the enzymes involved in biosynthesis of porphyrin. Also add a note on porphyrias.        | <b>05</b> |

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