

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
B. Pharm. - SEMESTER-3 • EXAMINATION – SUMMER -2018

Subject Code: 2230003

Date: 04/05/2018

Subject Name: Pharmaceutical Chemistry-III (Biochemistry - I)

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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|-------------|---|-----------|
| Q.1 | (a) Discuss properties and chemical reactions of monosaccharides. | 06 |
| | (b) How is galactose metabolized in our body? | 05 |
| | (c) Explain transport mechanisms across the cell membrane. | 05 |
| Q.2 | (a) Discuss synthesis of glucose in our body. | 06 |
| | (b) What are carbohydrates? Write a note on polysaccharides. | 05 |
| | (c) Describe HMP shunt with its significance. | 05 |
| Q.3 | (a) Explain factors affecting enzyme activity. | 06 |
| | (b) Classify enzymes with examples. | 05 |
| | (c) Discuss role of hormones in maintenance of blood glucose level. | 05 |
| Q.4 | (a) Write down reactions of fatty acid synthesis with its regulation. | 06 |
| | (b) Define lipids. Discuss different tests to check purity of lipids. | 05 |
| | (c) Discuss properties of triacylglycerol. | 05 |
| Q.5 | (a) What are ketone bodies? Discuss its synthesis and overproduction. | 06 |
| | (b) Discuss cholesterol synthesis in body. | 05 |
| | (c) Define: (I) Reducing sugar (II) Glycogenesis | 05 |
| | (III) Fatty acid (IV) Glycolysis | |
| | (V) Apo enzyme | |
| Q. 6 | (a) Discuss enzyme inhibition in detail. | 06 |
| | (b) Discuss biochemical importance of calcium and iron in our body. | 05 |
| | (c) Write a short note on following: | 05 |
| | (I) Essential fatty acids (II) Water metabolism. | |
| Q.7 | (a) Explain importance of vitamins as co-enzyme. | 06 |
| | (b) Discuss control of lipid metabolism. | 05 |
| | (c) Write a short note on following: | 05 |
| | (I) Lipoprotein (II) Isoenzymes | |
