

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

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

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**B.PHARM - SEMESTER- 3 EXAMINATION – WINTER -2019**

**Subject Code: 2230003****Date: 14-11-2019****Subject Name: Pharmaceutical Chemistry-III (Biochemistry – I)****Time: 10:30AM TO 01:30PM****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) Enumerate various cell organelles and discuss about mitochondria. **06**  
(b) Write a note on polysaccharide. **05**  
(c) Write principle of (a) Molisch 's test (b) Osazone Test. **05**
- Q.2** (a) Write a note on Embden –Meyerhof pathway and write salient features of it. **06**  
(b) Discuss TCA cycle. How many molecule of ATP are produce in the cycle? **05**  
(c) Write a note on role of hormones in maintenance of blood sugar level. **05**
- Q.3** (a) Give an account of pentose phosphate pathway and mention its importance. **06**  
(b) Write a note on glycogenolysis. **05**  
(c) Define gluconeogenesis. Discuss cori's cycle. **05**
- Q.4** (a) Define phospholipids. Classify them and write the functions of phospholipids. **06**  
(b) Write a note on utilization of ketone bodies. **05**  
(c) Write a note on lipid storage diseases. **05**
- Q.5** (a) Write a note on triglycerides **06**  
(b) Write note on fattyacid oxidation and explain  $\beta$ -oxidation on detail. **05**  
(c) What are fatty acids? Explain the various parameters measured to check the purity of fats and oils. **05**
- Q. 6** (a) Write a note on enzyme kinetics **06**  
(b) Write a note on enzyme inhibition. **05**  
(c) Classify enzyme with examples. **05**
- Q.7** (a) What is bioenergetics? Discuss their biochemical importance. **06**  
(b) Short note on water and mineral metabolism. **05**  
(c) Explain metals as co-enzyme and their Significance. **05**
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