

GUJARAT TECHNOLOGICAL UNIVERSITY**B.PHARM. - SEMESTER- V • EXAMINATION – SUMMER-2016****Subject Code: 250003****Date: 02/05/2016****Subject Name: Pharmaceutical Chemistry - V****Time: 2:30 PM to 5:30 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) What are carbohydrates? Give functions and classification of carbohydrates with examples. | 06 |
| | (b) Describe the structures and function of GAGs. | 05 |
| | (c) Describe the secondary structure of protein. | 05 |
| Q.2 | (a) Define the proteins. Classify them with suitable examples | 06 |
| | (b) Write a note on glycolipids. | 05 |
| | (c) Discuss concept of standard free energy. | 05 |
| Q.3 | (a) Define bioenergetics. Discuss in detail about inhibitors of oxidative phosphorylation. | 06 |
| | (b) Discuss Facilitated diffusion transport across the biological membranes. | 05 |
| | (c) Write a note on neutral fats. | 05 |
| Q.4 | (a) Give an account on nomenclature and classification of enzymes on the basis of the type of reactions with examples. | 06 |
| | (b) Describe the components of electron transport chain and add a note on oxidation of NADH. | 05 |
| | (c) Write a note on glycogen storage disease. | 05 |
| Q.5 | (a) Write the synthesis of ATP and give their biological significance. | 06 |
| | (b) Write a detailed note on Isoenzymes. | 05 |
| | (c) Explain about regulation and amphibolic nature of citric acid cycle. | 05 |
| Q. 6 | (a) How is galactose and fructose metabolized in the body? Add a note on abnormal metabolic disorders related to them. | 06 |
| | (b) Define neoglucogenesis. Explain the importance of Cori-cycle. | 05 |
| | (c) Write a note on enzyme pattern in various diseases. | 05 |
| Q.7 | (a) Enumerate vitamins used as coenzymes. Discuss any two of them. | 06 |
| | (b) Define following: (1) Anomer (2) Epimer (3) Lipoproteins (4) Reducing Sugar (5) Acetyl coenzyme A | 05 |
| | (c) Describe the role of hormones in maintenance of blood sugar level. | 05 |
