

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA PHARMACY YEAR- 1 • EXAMINATION – WINTER - 2023

Subject Code: 410004

Date: 14/12/2023

Subject Name: Biochemistry & Clinical Pathology

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.

- Q.1** (a) Define and classify carbohydrates with examples. Describe osazone test in detail. **06**
(b) Give Glycolysis pathway. **05**
(c) Write a note on mutarotation and inversion of sucrose. **05**
- Q.2** (a) What are proteins? Classify them with examples. Add a note on primary structure of proteins. **06**
(b) Write a note on disorders associated with protein metabolism. **05**
(c) Write a note on Ninhydrin test and Biuret test. **05**
- Q.3** (a) Define and classify lipids with examples. Add a note on functions of lipids. **06**
(b) Write a note on triacyl glycerols. **05**
(c) Write a note on β -oxidation of fatty acids. **05**
- Q.4** (a) Write a detailed note on urea cycle. **06**
(b) Give the role of iron and calcium in body. **05**
(c) Discuss in detail about enzyme inhibition and enzyme specificity. **05**
- Q.5** (a) Write source, biochemical functions and deficiency diseases of vitamin B2 and D3. **06**
(b) Write a note on diagnostic importance of enzymes. **05**
(c) Write normal and abnormal constituents of urine. Also give their clinical significance. **05**
- Q.6** (a) Discuss pathology of Red blood cells and types of anemia. **06**
(b) Explain Citric acid cycle. **05**
(c) Discuss the tests for identification of lipids. **05**
- Q.7** (a) What are enzymes. Discuss factors affecting enzyme activity. **06**
(b) What is biochemistry? Discuss its importance in pharmacy. **05**
(c) Discuss pentose phosphate pathway. **05**
