

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma Pharmacy (First Year) - Examination –May/June- 2011

Subject code: 410004

Subject Name: Biochemistry & Clinical Pathology

Date: 30/05/2011

Time: 10:30 am – 01:30 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) What are Carbohydrates? Classify them with examples **02**
(b) What are Mucopolysaccharides? Write in brief about biologically important Mucopolysaccharides **06**
(c) Describe Citric Acid Cycle with Chart. **08**
- Q.2** (a) What are Fatty Acids? Classify them. Write its biological importance **04**
(b) Discuss in brief Ketogenesis Process OR Glycolysis **04**
(c) Describe in detail Knoop's Beta oxidation of Fatty acids with its energetics **08**
- Q.3** (a) Discuss Pentose Phosphate Pathway with its importance **04**
(b) Write short note on Gluconeogenesis **04**
(c) What is Diabetes Mellitus? Discuss it in detail along with its symptoms and diagnostic tests **08**
- Q.4** (a) What is Zwitterion? Explain Amphoteric nature of Aminoacid **04**
(b) Explain in brief Oxidative Phosphorylation process **04**
(c) Describe Synthesis of Adrenaline and Thyroid hormones from Aminoacid **08**
- Q.5** (a) Give an account of diagnostic importance of Enzyme **04**
(b) Define the terms i) Zymogen ii) Enzyme Specificity **04**
iii) Group Specificity iv) Optical Specificity
(c) Explain in details various factors affecting enzyme activity **08**
- Q. 6** (a) Discuss Structure and Biological Significance of Nucleotides **04**
(b) Write differences between DNA and RNA **04**
(c) Discuss in brief Watson and Creek Model of DNA. **08**
Write Biological Significance of Nucleic Acids
- Q.7** (a) Write clinical and diagnostic Importance of following Urine abnormal constituents **04**
(i) Glucose (ii) Blood (iii) Bilirubin & Bile salts (iv) Ketone bodies
(b) Write Short note on Fat soluble vitamins **04**
(c) Describe Urea cycle along with metabolic disorders associated with it. **08**
