

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0424]

APRIL 2024

Sub. Code: 3003

**B.Sc. CLINICAL NUTRITION
FIRST YEAR (Regulation 2018-2019 onwards)
PAPER III – NUTRITIONAL BIOCHEMISTRY
Q.P. Code: 803003**

Time: Three Hours

Answer All questions

Maximum: 100 Marks

I. Elaborate on : (3 X 10 = 30)

1. Define Glycolysis. Explain the steps and Energetics of Glycolysis.
2. Explain about dietary sources, biochemical functions and recommended daily allowance and deficiency manifestations of Vitamin C.
3. Classify Amino acids based on structure, nutritional requirement and Metabolic fate with examples.

II. Write Notes on: (8 x 5 = 40)

1. Factors affecting Basal Metabolic Rate.
2. Classify Monosaccharide with suitable examples.
3. Competitive enzyme inhibition.
4. Essential Fatty Acids.
5. Definition, types and clinical features of Diabetes Mellitus.
6. Significance of Hexose Monophosphate shunt pathway.
7. Deficiency manifestations of Thiamine.
8. What is normal pH. Add a note on Buffers.

III. Short Answers on: (10 x 3 = 30)

1. Body Mass Index (BMI).
2. Enzyme profile in liver diseases.
3. Name the substrates for Gluconeogenesis.
4. Give examples of Anterior Pituitary hormones.
5. Scurvy.
6. Denaturation reaction of Proteins.
7. Name the different classes of Immunoglobulins.
8. Transamination reactions.
9. Functions of Parathyroid hormones.
10. Ketosis.
