

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

[MD 1223]

**DECEMBER 2023
(OCTOBER 2023 EXAM SESSION)**

Sub. Code: 2045

**M.D. DEGREE EXAMINATION
BRANCH XIII – BIOCHEMISTRY**

**PAPER III – INTERMEDIARY METABOLISM, MACRO AND MICRO
NUTRIENTS AND INBORN ERRORS OF METABOLISM**

Q.P. Code: 202045

Time: Three Hours

Maximum: 100 Marks

I. Essay Questions:

(2 x 15 = 30)

1. Write an essay on Glycogen Synthesis and breakdown and regulation of both with a note on Glycogen Storage disorders.
2. What is the Metabolic Fate of Tryptophan? What are the special products from Tryptophan? How are they formed write a note on errors in Tryptophan Metabolism.

II. Short notes:

(10 x 5 = 50)

1. Q cycle.
2. Enzyme profile in Icterus.
3. Acute complications of Diabetes.
4. Fatty Liver.
5. Metabolism of Imino acids.
6. Role of Menaquinone / Menadione in Coagulation pathway.
7. Vitamins in conversion of Fat to Glucose.
8. Role of Sulphur in metabolism.
9. Inborn errors of Fructose metabolism.
10. Lipases.

III. Reasoning Out:

(4 x 5 = 20)

1. Arsenate poisoning cause lactic acidosis.
2. Niacin deficiency causes Folate deficiency.
3. Calpain / Calpastatin system in neurovascular exocytosis.
4. Urine ketones positive does not infer diabetic complications.
