

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. What are the different types of fatty acid oxidation? Explain how even chain fatty acids are oxidized and how it differs from odd chain fatty acids oxidation.
2. Write an essay on the metabolism of the mineral causing Hypochromic microcytic anemia, Biochemical assessment of the deficiency manifestation.

II. Short notes:

(10 x 5 = 50)

1. Cytochromes in Electron transport chain.
2. Metabolism of Fructose.
3. Hyperuricemia.
4. Polyunsaturated fatty acids.
5. Hepatic Porphyrias.
6. Menke's disease.
7. Factors affecting enzyme activity.
8. GLA protein.
9. Anion gap.
10. Reverse cholesterol transport.

III. Reasoning Out:

(4 x 5 = 20)

1. Histidine load test is indicative of Folic acid deficiency.
2. Fasting hypoglycemia occur in which disorder and why?
3. Ascorbic acid is needed for Tyrosine metabolism.
4. Part of the Urea cycle occurs in Mitochondria.
