

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 sources, requirement, Biochemical functions and deficiency manifestations and assay of Menaquinone?
2. Write an essay on Metabolism during fed state and how it is regulated in various tissues?

II. Short notes:

(10 x 5 = 50)

1. Cytochrome P450.
2. Digestion and absorption of proteins.
3. Transmethylation.
4. Glucuronic acid.
5. Congenital hyperbilirubinemia.
6. Zinc –Biochemical functions and deficiency manifestation.
7. Different mechanisms of enzyme inhibition.
8. NADPH.
9. HbA1c.
10. Shuttles of Electron transport chain.

III. Reasoning Out:

(4 x 5 = 20)

1. Calcitriol is a hormone.
2. Intake of fruits increases lipid level.
3. Increased intake of fiber rich whole grain inhibits Calcium absorption.
4. Fatty acids need activation before oxidation.
