

(LE 150)

APRIL 2014

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:

(2X10=20)

1. Describe the regulation of intracellular cholesterol concentration and mention reverse transport of cholesterol.
2. Discuss the metabolism of iron.

II. Short Questions:

(8X5=40)

1. Regulators of appetite.
2. Methylmalonicaciduria.
3. Cytochrome P450.
4. Regulation of Phosphofructokinase.
5. Digestion of lipids.
6. Regulations of blood calcium.
7. Serine proteases.
8. Neurotransmitters.

III. Reasoning Out:

(4X5=20)

1. Methionine residues in protein – are they useful.
2. Km value is not always an indicator of affinity of enzyme to the substrate.
3. Reduction of oxygen in complex IV of ETC will not form reactive oxygen species.
4. Disorders of Betaoxidation causes hypoglycemia.

IV. Very Short Answers:

(10X2=20)

1. Suicide enzyme.
2. Perilipin.
3. Beta-alanine.
4. Functions of selenium.
5. Actions of Nitric Oxide.
6. Anapleurotic role of TCA cycle.
7. ATP.
8. Taurine.
9. Pseudoporphyria.
10. Haemoglobin E.
