

(LC 150)

APRIL 2013

Sub. Code: 2045

**M.D. DEGREE EXAMINATION
BRANCH XIII - BIOCHEMISTRY
INTERMEDIARY METABOLISM, MACRO AND MICRO NUTRIENTS
AND INBORN ERRORS OF METABOLISM**

Q.P. Code: 202045

Time: Three Hours

Maximum: 100 marks

I. Essay : (2x10=20)

1. What are the specialized products synthesized from cholesterol ? Describe the bile acid synthesis and their physiological significance.
2. Write a note on the metabolism and associated disorders of calcium.

II. Short Questions: (8x5=40)

1. Receptor mediated endocytosis of LDL.
2. Digestion of proteins
3. Brief on the significance of Glucose – Alanine cycle
4. Functions of Prostaglandins
5. Write a short note on Transamination
6. Role of Cytochrome P450
7. What is Chemiosmotic theory?
8. Types and features of Homocystinuria

III. Reasoning Out: (4x5=20)

1. Acute abdominal pain with psychiatric symptoms is seen in acute intermittent porphyria.
2. Conjugated bilirubin levels are elevated during the early recovery phase after the removal of obstruction.
3. Glucose – Alanine cycle utilizes muscle glycogen to maintain blood glucose in the fasting state
4. Selective inhibition of cyclooxygenase – 2 is preferred in the treatment of inflammatory conditions.

IV. Very Short Answers: (10x2=20)

1. Functions of Selenium
2. What is ALA synthase?
3. Types and roles of Histones
4. What is Protoporphyrin?
5. Significance of FIGLU
6. Biochemical features of Alkaptonuria
7. What is Crigler – Najjar syndrome type II?
8. Significance of Watson shwartz test
9. Uses and adverse effects of Phototherapy
10. What is Hyperuricemia ?
