

(LF 151)

OCTOBER 2014

Sub. Code:2046

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

**PAPER IV – CLINICAL BIOCHEMISTRY, HUMAN NUTRITION,  
ENDOCRINOLOGY, IMMUNOLOGY AND RECENT ADVANCES IN  
BIOCHEMISTRY**

*Q.P.Code: 202046*

**Time: Three Hours**

**Maximum: 100 marks**

**I. Essay Questions:**

**(2 x 10 = 20)**

1. Describe the different mechanisms of hormone action
2. What are aminoacidurias? What are the steps to evaluate aminoacidurias?

**II. Short Questions:**

**(8 x 5 = 40)**

1. Albuminuria.
2. Biochemical basis of Marasmus and Kwashiorkor.
3. Markers of bone turnover.
4. Evaluation of Growth hormone status in the body.
5. Serum total calcium.
6. Freidrickson's classification of lipoproteinemias – types, biochemical defect and laboratory findings.
7. HbA1c
8. Renal tubular acidosis.

**III. Reasoning Out:**

**(4 x 5 = 20)**

1. Why CK MB mass is preferred over CKMB activity in serum in the diagnosis of AMI.
2. What is the rationale behind the administration of Arginine and Benzoic acid in Urea Cycle Disorders.
3. Explain the reasons for biochemical findings in Type I GSD (Glycogen storage disease).
4. Why sometimes urine tests positive for Ketone Bodies although the patient is recovering from DKA and blood glucose levels are not very high.

**IV. Very Short Answers:**

**(10 x 2 = 20)**

1. Soret Band
2. Alpha fetoprotein
3. Immunoglobulins in acute and chronic infections
4. O'Sullivan & Mahan criteria of GDM
5. Medium Chain Acyl CoA dehydrogenase deficiency
6. Incretins and their function
7. Macroamylasemia
8. How will you calculate the expected compensation of pCO<sub>2</sub> in metabolic acidosis and metabolic alkalosis
9. 'Middle' molecules and their importance
10. Which is the best intracellular buffer pair and why?

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