(LE 151) **APRIL 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: **(2X10=20)**

1. Discuss in detail about the causes, types and compensatory mechanisms of Metabolic acidosis and alkalosis.

2. Metabolic Functions, regulation, associated disorders and laboratory assessment of adrenal medullary hormones.

II. Short Questions: **(8X5=40)**

1. Dietary Fibre.
2. Oncofetal antigens as tumour markers.
3. CSF analysis.
4. Advanced Glycation end products.
5. Epigenetics.
6. Pancreatic Function tests.
7. Neonatal screening for inborn errors in protein metabolism.
8. Markers of bone resorption with their clinical utility.

III. Reasoning Out: **(4X5=20)**

1. Why protein is expressed as a ratio with creatinine in spot urine examination?
2. CKD-EPI vs MDRD formula. Which is better for estimating GFR, Why?
3. Explain the reason for infertility in hypothyroid female patients.
4. Tandem Mass spectrometry is used only as a screening tool for aminoacidurias and not as diagnostic tool. Reason out.

IV. Very Short Answers: **(10X2=20)**

1. Tangiers disease.
2. List the biomarkers of chronic alcoholism.
3. Fecal calprotectin.
4. Microalbuminuria and its clinical significance.
5. 2 Early and 2 late markers of myocardial infarction.
6. Co-peptin and its significance.
7. Clinical disorders associated with α1- antitrypsin.
8. Mention the hormones which act via JAK-STAT pathway.
9. Enzyme deficiency in McArdles disease and its clinical manifestation.
10. Class switching of immunoglobulins.

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