

(LD 151)

OCTOBER 2013

Sub. Code: 2046

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

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

Q.P. Code: 202046

Time: Three Hours

Maximum: 100 marks

I. Essay :

(2x10=20)

1. Enumerate the World Health Organization's criteria for the diagnosis of diabetes mellitus. Analyze in detail the use of laboratory tests in the diagnosis and monitoring of diabetes mellitus.
2. Enumerate the types and causes of jaundice. Discuss in detail the laboratory assessment of jaundice.

II. Short Questions:

(8x5=40)

1. Significance of parathyroid function tests.
2. Role of cdk-cyclin complexes.
3. Mechanisms of insulin signaling.
4. Causes and abnormalities in hyperkalemia.
5. Role of cytochrome c in apoptosis.
6. Various maternal screening tests for fetal abnormalities.
7. Significance of major histocompatibility locus.
8. Causes and compensation of respiratory acidosis.

III. Reasoning Out:

(4x5=20)

1. A drug is known to have a positive interference with the Jaffes test for creatinine. Reason out the impact on calculation of estimated GFR and the corrective actions that may be taken.
2. Discuss the advantages and disadvantages of total parenteral nutrition.
3. Discuss the pros and cons of point of care (POC) testing for cardiac markers.
4. How is RBC zinc protoporphyrin measured? Discuss the pros and cons of zinc protoporphyrin as a marker of iron deficiency anemia.

IV. Very Short Answers:

(10x2=20)

1. Diagnosis of plasmacytoma.
2. Specific dynamic action for proteins.
3. Role of leptin in obesity.
4. Markers for chronic alcoholism.
5. Proteins in the beta region of serum electrophoretic pattern.
6. Enzyme markers for obstructive jaundice.
7. Simple screening tests for aminoacidurias.
8. Significance of mutual supplementation of foods.
9. Causes of lactic acidosis.
10. Tests to assess fetal lung maturity.
