

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. What are the causes of Conn's syndrome? Describe in detail the steps involved in the estimation and interpretation of Aldosterone renin ratio. What are the other biochemical changes and clinical features of Conn's syndrome?
2. What are the factors affecting plasma potassium concentration? Mention the renal and nonrenal causes of hypokalemia. Write an algorithm for investigation of hypokalemia.

II. Short Questions:

(8 x 5 = 40)

1. Estimation of GFR.
2. Quadruple screening.
3. Principles of planning energy requirement for an adult male.
4. Frederickson's classification of dyslipoproteinemias – types, defect and biochemical findings.
5. Homocystinurias.
6. PSA – biochemistry, clinical utility and interpretation of PSA values.
7. Investigations of hypoglycemia.
8. Laboratory assessment of Rickets.

III. Reasoning Out:

(4 x 5 = 20)

1. Excess intake of Lathyrus odoratus presents with skeletal deformities. Why?
2. Paternal Inheritance of defective PTH receptor allele causes pseudopseudo hypo parathyroidism. Why?
3. 5 α reductase defect presents as 'penis at 12' syndrome. Justify.
4. Fractional excretion of sodium less than in prerenal cause of ARF. Why?

IV. Very Short Answers:

(10 x 2 = 20)

1. What is lithogenic bile?
2. BMR.
3. What is the diagnostic significance of spot urinary chloride?
4. What is sick euthyroid syndrome?
5. What is ALD disease?
6. Biochemical assessment of Adrenoleuko dystrophy mucopolysaccharidoses.
7. What is Delta Anion gap and its significance?
8. What is the significance of delta bilirubin?
9. What is 1, 5 anhydro glucitol? What is its significance?
10. FIGLU test.
