NEPHROLOGY

PAPER – I

NEPHRO/D/16/20/I

Time : 3 hours
Max. Marks : 100

Important instructions:

- *Attempt all questions in order.*
- *Each question carries 10 marks.*
- *Read the question carefully and answer to the point neatly and legibly.*
- *Do not leave any blank pages between two answers.*
- *Indicate the question number correctly for the answer in the margin space.*
- *Answer all the parts of a single question together.*
- *Start the answer to a question on a fresh page or leave adequate space between two answers.*
- *Draw table/diagrams/flowcharts wherever appropriate.*

Write short notes on:

1. a) Physiology of renal autoregulation. 5+5
   b) Relevance of renal autoregulation in clinical conditions, especially with AKI.

2. Pododcyte: Structure, functions and its clinical significance in health & disease. 3+3+4

3. Hypomagnesemia: Causes, manifestations, investigations and treatment. 4+2+2+2

4. a) Development of kidney and urinary tract. 8+2
   b) Enumerate structural anomalies of kidneys.

5. a) Pathophysiology of distal RTA. 5+5
   b) Clinical and metabolic consequences of RTA.

6. a) Etiology of lactic acidosis. 5+5
   b) Approach to a patient with lactic acidosis.

7. a) Common clinical research study designs. 5+5
   b) Phases in clinical trials.

8. Vascular calcification in CKD: Pathogenesis, diagnosis and management. 3+4+3

9. a) Methods of estimation of serum creatinine 2+8
   b) Methods of estimation of GFR.

10. Moderately increased albuminuria in diabetes: 2+3+3+2
    a) Etiology
    b) Limitations
    c) Natural history in type II diabetes
    d) Clinical trials to prevent progression to macroalbuminuria in phase II diabetes.

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