

NEPHROLOGY  
PAPER-I

NEPHRO/J/18/20/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:

- Approach to a patient with hypercalcemia
  - Management of hypercalcemia6+4
- Anatomy of renal vasculature.
  - Role of Renin-Angiotensin system in control of GFR.5+5
- Human Leucocyte Antigen (HLA):
  - Class I and Class II HLA antigen molecules.
  - Enumerate the non-HLA antigens of significance in renal transplantation.
  - Three-signal model of T Cell Activation.4+2+4
- Meta-analysis:
  - Definition
  - Advantages and problems
  - Steps in a Meta-analysis2+3+5
- Refractory hypertension:
  - Define and discuss the etiology
  - Management
  - Renal denervation in treatment of refractory hypertension3+4+3
- Structure and functions of Glomerular basement membrane.
  - Structure and functions of Podocyte.
  - Enumerate the Podocytopathies.4+4+2
- Etiological classification of Polyuria.
  - Approach to a patient with polyuria.
  - Enumerate the therapies for treatment of Diabetes Insipidus.4+4+2
- Renal fibrosis:
  - Mechanisms of renal fibrosis
  - Role of TGF- Beta /SMAD signaling
  - Treatment targets in renal fibrosis4+4+2

P.T.O.



- |     |   |     |
|-----|---|-----|
| 9.  | Urinalysis:   | 5+5 |
|     | a) Target parameters in urinalysis                              |     |
|     | b) Various types of crystals in health and disease              |     |
| 10. | Type 2 diabetic nephropathy - Diabetic Kidney Disease (DKD):    | 8+2 |
|     | a) Various clinical trials in prevention of progression of DKD. |     |
|     | b) Discuss novel therapeutic perspectives in DKD.               |     |

\*\*\*\*\*