



## BRAINWARE UNIVERSITY

Term End Examination 2024-2025

Programme – B.Sc.(PA)-2021/B.Sc.(PA)-2022

Course Name – Nephrology

Course Code - BPAE505A

( Semester V )

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) An elderly man develops a sudden onset of chills, fever, dysuria and acute onset of pain abdomen. He has history of prostate hyperplasia, Splitting urinary flow and had been hospitalized for acute urinary retention. What will be the provisional diagnosis? Choose the correct option.
  - a) Nephrotic syndrome
  - b) Acute pyelonephritis
  - c) UTI
  - d) None of these
- (ii) A 66-year-old man has developed chronic renal failure with a serum urea of 60 mmol/L and creatinine of 650 micromol/L. Auscultation of the chest reveals a friction rub over the cardiac apex. He is most likely to have a pericarditis that is termed? Choose the correct option.
  - a) Fibrinous
  - b) Haemorrhagic
  - c) Purulent
  - d) None of these
- (iii) Which of the following is not true? Identify the correct option.
  - a) Stage I CKD- GFR  $\geq$  90 ml/min/1.73 m<sup>2</sup>
  - b) Stage I CKD  $\leq$  80 ml/min/1.73 m<sup>2</sup>
  - c) Stage III CKD- GFR 30-59 ml/min/1.73 m<sup>2</sup>
  - d) Renal failure(ESRD)- GFR  $<$  15ml/min/1.73 m<sup>2</sup>
- (iv) Select the correct option for the site reabsorption of Retinol-binding protein.
  - a) PCT
  - b) DCT
  - c) Loop of Henle
  - d) None of these
- (v) Which is considered as the 'GOLD-STANDARD METHOD for RENAL ARTERY IMAGING'-  
Select the correct option
  - a) CT angiography
  - b) MR Angiography
  - c) Spiral CT Angiography
  - d) Arteriography
- (vi) Describe the primary function of the urinary bladder.

- a) To produce urine  
c) To filter blood
- b) To store and expel urine  
d) To secrete hormones
- (vii) Discuss the microscopic structure of the kidney. Which part is responsible for filtration?
- a) Glomerulus  
c) Renal cortex
- b) Renal medulla  
d) Renal pelvis
- (viii) Identify, Indomethacin causes:
- a) Closure of ductus in premature neonate  
c) Closure of ductus in term & premature neonates
- b) Patent ductus arteriosus  
d) Closure of ductus in older children also
- (ix) Select the most common syndrome associated with AV canal defect?
- a) Down syndrome  
c) Turner syndrome
- b) Klinefelter syndrome  
d) Marfan syndrome
- (x) Identify obstruction in pulmonary stenosis may occur at the following sites:
- a) Supravalvular  
c) Subvalvular
- b) Valvular  
d) All of the above
- (xi) Tell which of the following symptoms of rheumatic fever may be the only isolated manifestation?
- a) Carditis  
c) Chorea
- b) Arthritis  
d) Subcutaneous nodules
- (xii) Which of the following is true for a child with acute kidney injury?
- a) Urine Specific gravity is higher in pre-renal failure  
c) Greater loss of sodium through urine in pre-renal failure
- b) Schwartz formula uses only serum Cr to calculate GFR  
d) S. Creatinine value may remain normal
- (xiii) An infant with severe dehydration secondary to diarrhea suddenly presents with flank mass and blood in urine. The most probable diagnosis is?
- a) Renal vein thrombosis  
c) Acute glomerulonephritis
- b) Pyelonephritis  
d) Lower nephrosis
- (xiv) In a child, non-functioning kidney is best diagnosed by:
- a) Ultrasonography  
c) DTPA renogram
- b) IVU  
d) Creatinine clearance
- (xv) Interpret, A 10-year-old girl present with polyuria and polydipsia with hypokalemia, hypercalciuria and metabolic alkalosis. What is the probable diagnosis?
- a) Gitelman syndrome  
c) Bartter syndrome
- b) Liddle syndrome  
d) Alport's syndrome

### Group-B

(Short Answer Type Questions)

3 x 5=15

2. Write a short note on Reflux Nephropathy? (3)
3. Define glomerular filtration rate (GFR) and its clinical significance. (3)
4. Describe the differences between Type I and Type II membranoproliferative glomerulonephritis (MPGN) (3)
5. Explain the pathophysiology of Stress incontinence? (3)
6. Differentiate between nephritic and nephrotic syndromes. (3)

OR

- Explain the Sign & Symptoms of Nephrolithiasis in brief? (3)



**Group-C**  
(Long Answer Type Questions)

5 x 6=30

7. What is Nephrotic syndrome? How will you differentiate between nephrotic & nephritic syndrome- write down in a tabular form. (5)
8. A 52 years old male patient is suffering from pain & heaviness in hypogastrium, obstructed feeling during micturition & lumbago. What will be the provisional diagnosis? How will you going to differentiate between the probable pathologies? (5)
9. Write down the Effects of NSAIDs on the kidney? (5)
10. What is micturition reflex? Describe the pathogenesis for nocturnal anuria? (5)
11. Explain the host defense mechanisms to prevent UTI? (5)
12. A 27 years old male patient visited with severe anxiety & shinking sensation; which will be accompanied by hyperhydrosis, palpitations, nausea & fainting. On enquiry patient is giving the history of sharp pain on back while over working or holding the urine for long time. During imaging studies, one kidney is showing the features of hydronephrosis & other is not visualized. What will be the provisional diagnosis? How will you going to differentiate the case to reach the confirmed diagnosis? Outline your plan of management for such a case? (5)

**OR**

A 69 years old female patient is complaining of ineffectual desire for urination with burning in urethra, especially after urination. Her USG is showing mild hydronephrosis of the left kidney. She has repeated history of UTI. What will be the probable diagnosis? How will you going to manage such a case? Construct a diagrammatic chart to justify your answer? (5)

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