

N.A



## BRAINWARE UNIVERSITY

Term End Examination 2022  
 Programme – B.Sc.(PA)-2019/B.Sc.(PA)-2020  
 Course Name – Nephrology  
 Course Code - BPA504  
 ( 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) Which of the following does not form part of the glomerular filtration barrier?
 

a) Endothelial cell fenestration	b) Sub-endothelial space
c) Glomerular basement membrane	d) Podocyte foot process slit diaphragm
  - (ii) The renal system does not play a direct role in regulating which of the following?
 

a) Blood solute concentrations	b) Blood temperature
c) Blood pressure	d) Blood pH
  - (iii) Which of the following has a function in maintaining the acid-base balance of the body ?
 

a) Juxtaglomerular cells	b) . Principle cells
c) Intercalated cells	d) Macula densa
  - (iv) A 5-year-old child has complained of pain in his abdominal region for the past 2 months. Physical examination reveals a palpable mass in the posterior abdomen. An abdominal CT scan shows a mass involving the left kidney. A nephrectomy is performed and the specimen is shown here. Which of the following is the most likely diagnosis?
 

a) Wilms tumour	b) Urothelial carcinoma
c) Renal cell carcinoma	d) Neuroblastoma
  - (v) A 12-year-old boy has felt tired for the past 2 months. On physical examination he has periorbital edema. Laboratory studies show his serum urea nitrogen is 26 mg/dL and creatinine 2.4 mg/dL. He is given a course of corticosteroid therapy but does not improve. A renal biopsy is performed, and the microscopic appearance with trichrome stain is shown here. This appearance is 3 of 10 glomeruli present in the biopsy. Immunofluorescence staining is nonspecific. Which of the following renal diseases is he most likely to have?
 

a) Minimal change disease	b) Nodular glomerulosclerosis
c) Focal segmental glomerulosclerosis	d) Alport syndrome
  - (vi) Does acute glomerulonephritis most often occur as a complication of which of the following?
 

a) A back injury	b) Poor nutrition
c) A streptococcal infection	d) A viral infection

- (vii) which of the following is not a symptom of Urinary Bladder cystitis?  
 a) Suprapubic pain  
 b) painful sexual intercourse  
 c) waking up from sleep to urinate  
 d) tearing pain in the urethral region
- (viii) Urinary Bladder Cystitis is commonly associated with which of the following disease?  
 a) Sjögren syndrome  
 b) renal calculi  
 c) Duodenal ulcers  
 d) All of the above
- (ix) Which part of the nephron carries out bicarbonate reabsorption?  
 a) Proximal Tubule & Loop of Henle  
 b) Distal Tubule & collecting duct  
 c) Both of the above  
 d) None of the above
- (x) What types of tissues are found in the kidney?  
 a) Nephritic Tissue  
 b) Epithelial Tissues  
 c) Connective Tissues  
 d) Muscle Tissue
- (xi) Which of the following tissues make up the ureteric wall?  
 a) Inner Mucosa  
 b) Middle Muscle Layer  
 c) Serosa  
 d) All of the above
- (xii) In which of the following congenital anomaly, Potter's syndrome is visible?  
 a) hydronephrosis  
 b) multicystic dysplastic kidney  
 c) CAKUT  
 d) Wilm's tumor
- (xiii) A 75-year-old woman being investigated for recurrent urinary tract infections (Proteus on culture) has a staghorn calculus on CT. What is the most likely stone composition?  
 a) Cysteine  
 b) Uric acid  
 c) Struvite  
 d) Calcium oxalate
- (xiv) Choose the condition where steroid therapy is not effective  
 a) Henoch-Schonlein Purpura  
 b) Fibrinectin Glomerulopathy  
 c) Diabetic Nephropathy  
 d) Kimmelstein-Wilson Syndrome
- (xv) Which microorganism causes pyelonephritis?  
 a) S. nephri  
 b) E. Coli  
 c) V. Cholerae  
 d) Both 1 and 2

### Group-B

(Short Answer Type Questions)

3 x 5=15

2. Short note: Xanthogranulomatous pyelonephritis (3)
3. Differentiate urinary frequency according to several pathological conditions, i.e. frequency, pain, urgency etc. (3)
4. Write a short note on Urethral stricture in a post catheterisation case (3)
5. Short note of Nephron (3)
6. Describe the criteria for diagnosis of Bacteriuria (3)

OR

Short Note: TINU syndrome

(3)

### Group-C

(Long Answer Type Questions)

5 x 6=30

7. What is micturition reflex? Describe the pathogenesis for nocturnal anuria? (5)
8. What is BHP? Describe the clinical features of BHP? How will you confirm such a case? (5)
9. Describe the pathogenesis of Renal hypertension? How will you reach to such confirmed diagnosis (5)
10. What are differential diagnosis of Haematuria? (5)
11. Describe the pathogenesis of Albuminuria? What are the complications one can encounter in such a case? (5)
12. Describe the relations of membranous part of male urethra (5)

OR

What is GFR? What are the etiological factors which can alter the GFR?

(5)