

Time : 1 hour 15 Minute

STD 11 Science Biology  
chapter Based Test

Total Marks : 40

## SECTION A

\* Choose The Right Answer From The Given Options.[1 Marks Each] [6]

- The kidney of an adult frog is:  
(A) Pronephros (B) Mesonephros  
(C) Metanephros (D) Opisthonephros
- The condition of excess urea in blood is known as:  
(A) Haematuria. (B) Uraemia.  
(C) Polyuria. (D) None of these.
- Urea from the blood can be removed by:  
(A) Uremia (B) Micturition (C) Diuresis (D) Dialysis
- Proximal and distal convoluted tubules are parts of:  
(A) Oviduct. (B) Nephron.  
(C) Vas deferens. (D) Seminiferous tubules.
- In which of these animals, antennal gland functions as excretory organs?  
(A) Human being (B) Cockroach  
(C) Planaria (D) Prawn
- By definition, an ectotherm.  
(A) Obtains most of its heat from its environment.  
(B) Derives most of its heat from its own metabolism.  
(C) Is warm-blooded.  
(D) Is cold-blooded.

\* Answer The Following Questions In One Sentence.[1 Marks Each] [5]

- What are the main processes of urine formation?
- Mention two characteristics of ammonia as a metabolic waste.
- Mark the odd one in the following group.  
Afferent arteriole, Henle's loop, vasa rectae, efferent arteriole.
- What is the name of the gland situated above kidneys?
- What is the full form of ADH?

## SECTION B

\* Given Section consists of questions of 2 marks each. [10]

1. Bring out the role of vasopressin (ADH) in kidney functioning.
2. The following abbreviations are used in the context of excretory functions, what do they stand for?
  - a. ANF
  - b. ADH
  - c. GFR
  - d. DCT
3. What is the function of proximal convoluted tubules in the kidney?
4. Excretion is an important process as it helps in getting rid of waste from the body. Which of these is similar to this fact? What is the importance of maintaining cleanliness at public places?
  - a. Cleaning our home is necessary to create a healthy place for living.
  - b. Garbage should be thrown out every day.
  - c. Garbage dumping sites should be far away from the city limits.
5.
  - a. Mention the two factors/reasons for the increase in the osmolarity of filtrate from the cortex to the inner medullary interstitium.
  - b. Give the values of osmolarity of filtrate in the nephron in (i) the cortex and (ii) inner medulla, respectively.

### SECTION C

\* Given Section consists of questions of 3 marks each.

[9]

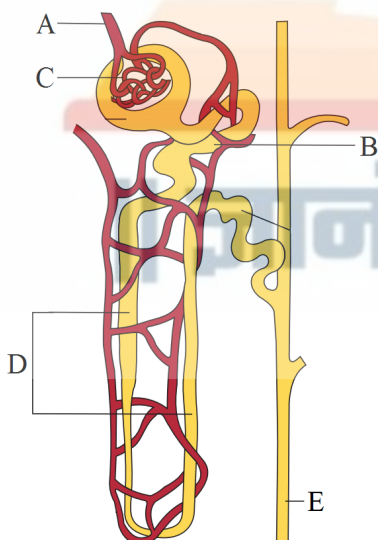
1. Explain the mechanism of urine formation.
2. The composition of glomerular filtrate and urine is not same. Comment.
3. What is the procedure advised for the correction of extreme renal failure? Give a brief account of it.

### SECTION E

\* Given Section consists of questions of 5 marks each.

[10]

1.
  - i. Study the given structure carefully and label the parts given as A, B, C, D and E.
  - ii. Give one major function of each of these.



2. Describe the process of hemodialysis.



॥ ज्ञानं एव श्रमस्य पुंजः ॥