Chapter – 16 | Excretory Products and their Elimination

QUIZ-01

1. The most toxic nitrogenous waste is:
   A. Urea
   B. Uric acid
   C. Ammonia
   D. Creatinine (C)

Explanation : Ammonia is highly toxic and needs a large amount of water for its elimination.

2. Animals that mainly excrete urea are called:
   A. Ammonotelic B. Ureotelic
   C. Uricotelic D. Osmotelic (B)

Explanation : Mammals, many terrestrial amphibians and marine fishes excrete urea, so they are ureotelic.

3. The excretory structures of insects like cockroach are:
   A. Nephridia
   B. Flame cells
   C. Green glands
   D. Malpighian tubules (D)

Explanation : Malpighian tubules remove nitrogenous wastes and help in osmoregulation in insects.

4. The functional unit of the kidney is:
   A. Nephron B. Neuron
   C. Alveolus D. Villus (A)

Explanation : Each kidney has nearly one million nephrons, which are the functional units of the kidney.

5. Malpighian body is formed by:
   A. PCT and DCT
   B. Glomerulus and Bowman's capsule
   C. Loop of Henle and collecting duct
   D. Renal pelvis and calyx (B)

Explanation : Glomerulus along with Bowman's capsule forms the Malpighian body or renal corpuscle.

6. The first step of urine formation is:
   A. Reabsorption
   B. Secretion
   C. Glomerular filtration
   D. Micturition (C)

Explanation : Blood is first filtered through the glomerulus into Bowman's capsule; this is called glomerular filtration.

7. Normal glomerular filtration rate in a healthy person is about:
   A. 25 mL/min B. 50 mL/min
   C. 125 mL/min D. 500 mL/min (C)

Explanation : GFR is approximately 125 mL per minute, which is about 180 litres per day.

8. The major site of reabsorption in the nephron is:
   A. PCT
   B. DCT
   C. Collecting duct
   D. Bowman's capsule (A)

Explanation : PCT reabsorbs nearly all essential nutrients and 70–80% of electrolytes and water.

9. The descending limb of Henle's loop is:
   A. Permeable to water but almost impermeable to electrolytes
   B. Impermeable to water but permeable to electrolytes
   C. Impermeable to both water and electrolytes
   D. Permeable only to proteins (A)

Explanation : The descending limb allows water movement, so the filtrate becomes concentrated as it moves down.

10. ADH mainly helps in:
    A. Increasing glucose excretion
    B. Increasing water reabsorption
    C. Breaking kidney stones
    D. Reducing blood clotting (B)

Explanation : ADH or vasopressin facilitates water reabsorption from later parts of the tubule and prevents excessive urine formation.