EXCRETORY PRODUCTS & THEIR ELIMINATION

1. Which is not correctly matched ?

(1) Malpighian tubules - Cockroaches

(2) Antennal glands - Planaria

(3) Nephridia - Earthworm

(4) Protonephridia - Amphioxus

2. Which part of nephron is not situated in the cortical region of the kidney ?

(1) Malpighian body

(2) PCT

(3) DCT

(4) Loop of Henle

3. Which of the following group of animals are ammonotelic in nature ?

(1) Many bony fishes, amphibians, Insects.

(2) Marine Fishes, amphibians, aquatic insects

(3) Mammals, birds, Reptiles

(4) Many bony fishes, aquatic amphibians, aquatic insects.

4. Which statement is not true regarding the reabsorption ?

(1) Nearly 99 percent of the filtrate has to be reabsorbed by the renal tubules.

(2) Nearly all of the essential nutrients are reabsorbed by PCT.

(3) DCT is also capable of reabsorption of HCO_3^-

(4) Reabsorption of hydrogen and potassium ions occur in DCT.

5. Conditional reabsorption of Na^+ and water takes place in :

(1) PCT

(2) DCT

(3) Henle's loop

(4) Bowman's capsule

6. Which segment of nephron allows passage of small amount of urea into the medullary interstitium ?

(1) PCT

(2) DCT

(3) Collecting duct

(4) Henle's loop

7. Correct match list-1 with list-2

List-1	List-2
(A) Glycosuria	(i) Inflammation of glomeruli of kidney
(B) Ketonuria	(ii) Presence of glucose in urine
(C) Glomerulonephritis	(iii) Excess of urea in blood
(D) Uremia	(iv) Presence of ketone bodies of urine

(1) A-(i), B-(ii), C-(iii), D-(iv)

(2) A-(ii), B-(iv), C-(iii), D-(i)

(3) A-(ii), B-(iv), C-(i), D-(iii)

(4) A-(i), B-(ii), C-(iv), D-(iii)

8. Find out the correct statement :

(1) An increase in body fluid volume, stimulate the ADH release.

(2) A fall in glomerular blood flow can activate the JG cells to release renin.

(3) Angiotensin-II, being a powerful vasodialator, decreases the glomerular blood pressure.

(4) Decrease in blood flow to the atria of the heart can cause the release of atrial natriuretic factor(ANF)

9. HCO_3^- is reabsorbed in which part of nephron :

(1) PCT, DCT

(2) PCT, Henle's loop

(3) DCT, Henle's loop

(4) Collecting duct, Bowman's capsule

10. Which substances are reabsorbed actively in nephron ?

(1) Glucose, water (2) Glucose, Na^+

(3) Amino acids, Urea (4) Na^+, Water

11. Micturition is due to :

(1) Relaxation of smooth muscles of the urinary bladder

(2) Contraction of the urethral sphincter

(3) Relaxation of the urethral sphincter

(4) Peristalsis in ureter

12. Which points are not correct about angiotensin-II ?

(a) Decreases the glomerular blood pressure.

(b) Activates the adrenal cortex to release aldosterone

(c) Powerful vasoconstrictor

(d) Decreases the GFR

(e) Activates the JG cells to release renin.

(1) a, b, c (2) a, d, e

(3) c, d, e (4) b, c, e

13. Which substances are reabsorped in collecting duct?

(1) Glucose, Water (2) Water only

(3) H^+, K^+ ions (4) Water, H^+ ions

14. In which part of nephron electrolytes are not reabsorped?

(1) PCT

(2) DCT

(3) Descending limb of Henle's loop

(4) Ascending limb of Henle's loop

15. In which part of nephron water is not reabsorbed?

(1) PCT

(2) DCT

(3) Descending limb of Henle's loop

(4) Ascending limb of Henle's loop

16. Find out the incorrect statement

(1) Ammonia is the most toxic form and requires large amount of water for its elimination.

(2) Kidneys do not play any significant role in ammonia removal.

(3) Human kidneys can produce only hypertonic urine nearly five times concentrated than the initial filtrate.

(4) Urea may be retained in the kidney matrix of some animals to maintain a desired osmolarity.

17. In interstitial fluid of the kidney an increasing osmolarity from cortex to the inner medulla. This gradient is mainly caused by :

(1) Na^+, K^+

(2) NaCl and Urea

(3) NaCl, Water, HCO_3^-

(4) Urea, K^+, HCO_3^-

18. Which of the following is not secreted into the filtrate in the PCT by active process?

(1) H^+ ions

(2) Ammonia

(3) Creatinine

(4) Urea

19. Which of the following plays a significant role in producing concentrated urine?

(1) PCT and Henle's loop

(2) Henle's loop and Vasa recta

(3) Collecting duct and DCT

(4) Collecting duct and PCT

20. Which statement is not correct about glomerular filtration?

(1) On an average 1100-1200 ml of blood is filtered by the kidney per minute.

(2) Glomerular filtrate is blood plasma except protein.

(3) GFR in a healthy individual is approxiamately 125 ml/minute or 180 lit per day.

(4) Complete blood plasma is filtered in ultrafiltration process.

ANSWERS KEY

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ans.	2	4	4	4	2	3	3	2	1	2	3	2	2	3	4	3	2	4	2	4