

CHAPTER 19: EXCRETORY PRODUCTS AND THEIR ELIMINATION

ONE MARK QUESTIONS

1. Which cells secrete renin? (K)
2. Name the most toxic form of nitrogenous waste produced by animals. (K)
3. Name the least toxic form of nitrogenous waste produced by animals. (K)
4. What is ammonotelism? (K)
5. What is ureotelism? (K)
6. What is uricotelism? (K)
7. Mention the chief nitrogenous waste that is excreted by mammals. (K)
8. Give one example for ammonotelic organism. (U)
9. Give one example for ureotelic organism. (U)
10. Give one example for uricotelic organism. (U)
11. Most aquatic organisms are ammonotelic. Give reason. (U)
12. Heparin is added to the blood in the dialysis unit. Why? (A)
13. What is the principle behind excretion of urea and uric acid by mammals and reptiles respectively? (K)
14. Name the organ of mammals that converts ammonia into urea. (K)
15. Name the excretory organ in vertebrates. (K)
16. What are the excretory organs in phylum Platyhelminthes? (K)
17. What is protonephridia? (K)
18. Name the osmoregulatory organs in Platyhelminthes. (K)
19. What is the function of protonephridia in Platyhelminthes? (U)
20. What are Malpighian tubules? (K)
21. Name the excretory organs of cockroach. (K)
22. Name the excretory organs in crustaceans. (K)
23. What are green glands? (K)
24. Name the human excretory organs. (K)
25. What are the conical masses present in the medulla of human kidney? (K)
26. What are nephrons? (K)
27. Name the structural and functional units of human excretory system. (K)
28. Where is 'Columns of Bertini' located? (K)
29. What are Bowman's capsules? (K)
30. Expand the abbreviation PCT. (U)
31. Expand abbreviation DCT. (U)
32. What is Henle's loop? (K)
33. What are cortical nephrons? (K)
34. What are juxta medullary nephrons? (K)
35. What are peritubular capillaries? (K)
36. What is Vasa recta? (K)
37. Glomerular filtration is called ultrafiltration. Give reason. (U)
38. Define ultrafiltration/ glomerular filtration. (K)
39. Name the epithelial cells lining the Bowman's capsule. (K)
40. What are podocytes? (K)
41. What is glomerular filtration rate? (K)
42. State the function of PCT. (U)
43. Name the part of the nephron that maintains high osmolarity of medullary interstitial fluid. (K)
44. Name the part of the nephron that maintains sodium potassium balance in blood. (K)

45. What is counter current mechanism?(K)
46. Expand abbreviation ADH.(U)
47. Name the anti diuretic hormone.(K)
48. State the function of ADH.(U)
49. Name the vasoconstrictor that increases GFR.(K)
50. Expand abbreviation GFR.(U)
51. Mention the role of Angiotensin I. (K)
52. Mention the role of Angiotensin II. (K)
52. Which hormone activates the release of Aldosterone?(K)
53. Which hormone regulates the reabsorption of water in the kidneys? (K)
54. Which hormone regulates the reabsorption of salts in the kidneys?(K)
55. Expand abbreviation ANF (U)
56. What is micturition?(K)
59. Which organ of the human body is involved in the release of CO₂ from human body?(U)
60. State the role of sebaceous glands in excretion (U)
61. Mention one excretory function of the liver. (K)
62. What is Uremia?(K)
63. What is haemodialysis?(K)
64. What method is employed to remove urea from blood when an individual suffers from renal failure?(A)
65. Give one example for an anticoagulant of blood.(U)
66. What is the anticoagulant used in haemodialysis?(K)
67. What is renal calculi?(K)
68. Name the kidney stones.(K)
69. What is glomerulonephritis?(K)
70. What do you call the inflammation of glomerulus?(U)
71. What are Osmoreceptors?(K)
72. Name the enzyme released by the juxtamedullary apparatus.(K)
73. What is the pH of urine?(K)
74. What is the disease called when an individual suffers from glycosuria and ketonuria?(K)
75. What is the primary function of sweat?(K)
76. In an analysis urine has the presence of glucose and ketones, What does it indicate(A)
77. What are nephridia?(K)
78. Heparin is added to the blood in a dialyzing unit. Why? (U)
79. Which part of peritubular structure is absent in cortical nephrons?(K)
80. What is the amount of blood filtered by kidneys per minute?(K)
81. What is GFR per day?(K)
82. Name the hormone synthesized by JGA when GFR falls down. (K)
83. The primary filtrate becomes very concentrated as it moves down the henle's loop. Why?(A)
84. What is glycosuria? (K)
85. What is ketonuria? (K)
86. What is the amount of urea excreted by a normal healthy adult per day? (K)
87. Name the excretory organs of earthworm and annelids. (K)

TWO MARKS QUESTIONS:

1. Name four metabolic wastes produced by organisms.(K)
2. Define excretion. Mention any two nitrogenous wastes produced during metabolism.(K)
3. What are ammonotelic organisms? Mention two examples.(K)

4. What are ureotelic organisms? Mention two examples.(K)
5. What are uricotelic organisms? Mention two examples.(K)
6. Name the type of excretory waste produced in (K)
 - a) Bony fishes b) Marine fishes c) adult frogs d) Birds
7. Differentiate ammonotelic and ureotelic organisms with one example each.(K)
8. Differentiate ammonotelic and uricotelic organisms with one example each.(K)
9. Differentiate uricotelic and ureotelic organisms with one example each.(K)
10. Mention the excretory organs in (K)
 - a) Amphioxus b) Cockroach c) Earthworm 4) Prawn
11. Differentiate cortical nephrons and juxta medullary nephrons(K)
12. Name the layers of endotheliocapsular membrane.(K)
13. Mention the role of juxta medullary apparatus in the regulation of glomerular filtration rate.(U)
14. When is kidney transplanted & why the donor has to be a close relative?
15. How does PCT help in maintaining the pH and ionic balance of body fluids?(U)
16. Mention the role of Henle's loop in urine formation.(U)
17. What is the role of collecting ducts in urine formation?(U)
18. Mention the role of vasopressin in urine formation.(U)
19. What is Atrial Natriuretic Factor (ANF)? How does it check Renin – Angiotensin mechanism?(U)
20. List the role of aldosterone in kidney function.(K)
21. Mention the role of skin in excretion.(K)
22. Draw a labeled diagram of Malpighian body or Renal corpuscle(S)
23. What are the components of Malpighian corpuscle?
24. How is ammonia excreted by ammonotelic organisms?
25. Write the role of Renin?
26. Classify nephrons based on the length of Henle's loop.

THREE MARKS QUESTIONS:

1. Name the types of metabolic wastes produced by organisms.(k)
2. List the steps involved in the mechanism of urine formation.(k)
3. Explain the role of the tubules of the nephron in urine concentration mechanism.(u)
4. Explain haemodialysis.(u)
5. Name and explain any three disorders of the excretory system.(k)
6. Explain the role of Renin – Angiotensin in the regulation of kidney functions.(u)
7. What are sebaceous glands? Write its functions.(u)
8. What are the three layers through which glomerular filtration take place? (K)

FIVE MARKS QUESTIONS:

1. Draw a neat-labeled diagram of human urinary system.(s)
2. Explain the structure of human excretory system with a neat –labeled diagram.(u)
3. Draw and label the parts of the longitudinal section of human kidney.(s)
4. Explain the anatomy of human kidney. (u)
5. With a neat-labeled diagram explain the structure of a nephron. (s)
6. Draw and label the parts of a nephron / uriniferous tubule. (s)
7. Describe the mechanism of urine formation in the nephrons.(u)
8. Explain the functions of nephron tubules in urine formation.(u)
9. Explain the mechanism of concentration of glomerular filtrate.(u)

10. Describe the role of different hormones in the regulation of kidney function.(u)
11. Give a brief account of counter-current mechanism. (u)
12. Describe the role of liver, lungs and skin in excretion. (u)
13. Explain the role of Henle's loop and vasa recta in the formation of concentrated urine. (u)