

BIOLOGY

BOOKS - NCERT BIOLOGY (HINGLISH)

EXCRETORY PRODUCTS AND THEIR ELIMINATION



1. The following substances are the exretory products in animals. Choose the least toxic

from among them					
A. Urea					
B. Uric acid					
C. Ammonia					
D. Carbon dioxide					
Answer: B					
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2. Filtration of the blood takes place at					

- A. PCT
- B. DCT
- C. Collecting ducts
- D. Malpighian body

Answer: D



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3. Which of the following statement is incorrect?

- A. ADH prevents conversion of angiotensinogen in blood to angiotensin
- B. Aldosterone facilitates water reabsorption
- C. ANF enhances sodium reabsorption
- D. Renin causes vasodilation

Answer: A



4. A large quantity of one of the following is removed from our body by lungs.

A.
$$CO_2$$
 only

B.
$$H_2O$$
 only

C.
$$CO_2$$
 and H_2O

D. ammonia

Answer: C



5. The pH of human urine is approximately

A. 6.5

B. 7

C. 6

D. 7.5

Answer: C



6. Different types of excretory structure and animals are given below. Match them appropriately and mark the correct answer from among those given below.

Excretory structure/organ		Animals
A. Protonephridia	i.	Prawn
B. Nephridia	ii.	Cockroach
C. Malpighian tubules	iii.	Earthworm
D. Green gland or Antennal gland	iv.	Flatworms

A.
$$A B C D$$

4 3 2 1

B. $A B C D$

B. $A B C D$

2 3 1 2

C. $A B C D$

4 3 1 2

D. $A B C D$

D. $A B C D$

2 3 2 4

Answer: A



- **7.** Which one of the following statements is incorrect?
 - A. Birds and land snails are uricotelic animals
 - B. Mammals and frogs are ureotelic animals

C. Aquatic amphibians and aquatic insects

are ammonotelic animals

D. Birds and reptiles are ureotelic

Answer: D



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8. Which of the following pairs is wrong?

A. Uricotelic Birds

B. Ureotelic Insects

- C. Ammonotelic Tadpole
- D. Ureotelic Elephant

Answer: B



- **9.** Which one of the following statements is incorrect?
 - A. The medullary zone of kidney is divided into a few conical masses called

medullary pyramids projecting into the calyces

- B. Inside the kidney the cortical region extends in between the medullary pyramids as renal pelvis
- C. Glomerulus along with Bowman's capsule is called the renal corpuscle
- D. Renal corpuscle, Proximal Convoluted

 Tubule (PCT) and Distal Convoluted

Tubule (DCT) of the nephron are situated in the cortical region of kidney

Answer: B



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10. The condition of accumulation of urea in the blood is termed as

A. renal calculi

B. glomerulonephritis

- C. uremia
- D. ketonuria

Answer: C



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11. Which one of the following is also known as antidiuretic hormone?

- A. Oxytocin
- B. Vasopressin

C. Adrenaline

D. Calcitonin

Answer: B



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12. Match the following columns.

	Column I		Column II
A	Proximal convoluted tubule	1.	Formation of concenterated urine
3	Oistal convoluted tubule	2.	Filtration of blood
Ç	A162 (1)6	3.	Reabsorption of 70-80% of electrolytes
	Counter current mechanisms	4.	ionic balance
£.	July 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	5.	Maintenance of concentration gradient in medulla.

Answer: B



13. Match the following columns.

Column I			Column II
A.	Glycosurea	1.	Accumulation of uric acid in joints
В.	Renal calculi	2.	Inflammation in glomeruli
C.	Glomerular nephritis	3.	Mass of crystallised salts within the kidney
D.	Gout	4.	Presence of glucose in urine

Answer: C



14. We can produce concentrated? Dilute urine. This is facilitated by a special mechanism. Identify the mechanism.

- A. Reabsorption from PCT
- B. Reabsorption from collecting duct
- C. Reabsorption/Secretion in DCT
- D. Counter current mechanism in Henle's

loop/vasa recta

Answer: D

15. Dialysing unit (artificial kidney) contains a fluid which is almost same as plasma except that it has

A. high glucose

B. high urea

C. no urea

D. high uric acid

Answer: C



Very Short Answer Type Questions

1. Where does the selective reabsorption of glomerular filtrate take place?



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2. What is the excretory product from kidneys of reptiles?

3. What is the composition of sweat produced by sweat glands?



4. Identify the glands that perform the excretory function in prawns.



5. What is the excretory structure in Amoeba?



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6. The following abbreviations are used in the context of excretory functions, what do they stand for?



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7. Differentiate glycosuria from ketonuria.





8. What is the role of sebaceous glands?



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9. Name two actively transported substances in glomerular filtrate.



10. Mention any two metabolic disorders, which can be diagnosed by analysis of urine.



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11. What are the main processes of urine formation?



12. Short the following into actively or passively transported substances during reabsorption of GFR. e.g., glucose, amino acids, nitrogenous wastes, Na^+ , water.



- **13.** Complete the following
- (a) Urinary excretion = tubular reabsorption +
- tubular secretion-
- (b) Dialysis fluid = plasma -

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14. Mention the substances that exit from the tubules in order to maintain a concentration gradient in the medullary interstitium.



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15. Fill	in	the	b	lan	ks	appr	opri	iatel	y

Organ Excretory wastes
(a) Kidneys

(b) Lungs

(c) Liver

(d) Skin



Short Answer Type Questions

1. Show the structure of a renal corpuscle with the help of a diagram.



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2. What is the role played by renin - angiotensin in the regulation of kidney

function?



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3. Aquatic animals generally are ammonotelic in nature where as terrestrial forms are not. Comment.



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4. The composition of glomerular filtrate a durine is not same. Comment.

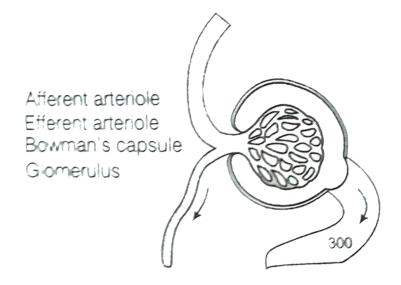
5. What is the procedure advised for the correction of extreme renal failure? Give a brief account of it.



6. How have the terrestrial organisms adapted themselves for conservation of water?



7. Label the parts in the following figure.





8. Explain, why a haemodialysing unit called artificial kidney?



9. Where does the selective reabsorption of glomerular filtrate take place?



Long Answer Type Questions

1. Explain the mechanism of formation of concentrated urine in mammals.

2. Draw a labelled diagram showing reabsorption and secretion of major substances at different parts of the nephron.



3. Explain briefly, micturition and disorders of the excretory system.



4. How does tubular secretion help in maintaining ionic and acid-base balance in body-fluids?



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5. The glomerular filtrate in the loop of Henle gets concentrated in the descending and then gets diluted in the ascending limbs. Explain.



6. Describe the structure of a human kidney with the help of a labelled diagram.

