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NEET EXCRETORY PRODUCTS AND THEIR ELIMINATION — FUNCTION OF THE TUBULES, COUNTER CURRENT MECHANISM — PYQS

Max. Marks: 52 **Questions:** 13

Section A (MCQ) — 13 questions

Q.1 Which of the following statements about the reabsorption process in Henle's loop are correct?

A. The descending limb of Henle's loop is permeable to water but almost impermeable to electrolytes.

B. Urine gets concentrated in Henle's loop.

C. Reabsorption of Na^+ and water takes place in Henle's loop.

D. Active or passive transport of electrolytes occurs in the ascending limb of Henle's loop.

[RE-NEET (UG) 2026]

(1) A, B and D only (2) A and B only

(3) B, C and D only (4) A, B and C only

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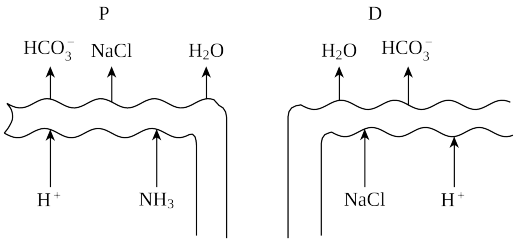
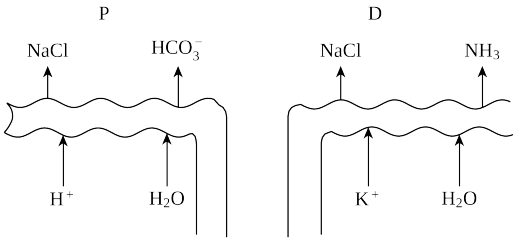
Q.2 Which of the following diagrams is correct with regard to the proximal (P) and distal (D) tubule of the Nephron. [NEET (UG) 2025]

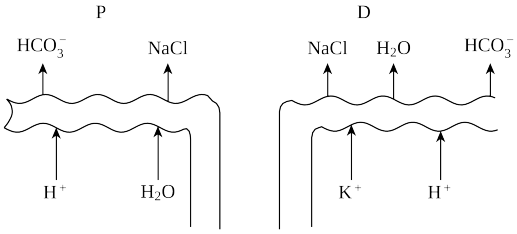
(1)



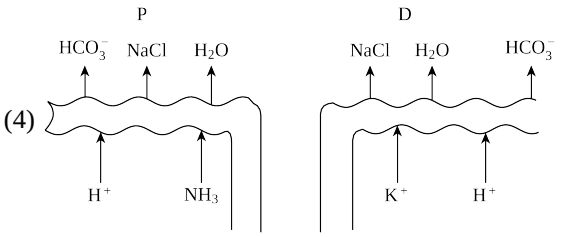
(2)



(3)



(4)



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Q.3 Given below are two statements :

Statement-I: In the nephron, the descending limb of loop of Henle is impermeable to water and permeable to electrolytes.

Statement-II: The proximal convoluted tubule is lined by simple columnar brush border epithelium and increases the surface area for reabsorption.

In the light of the above statements, choose the correct answer from the options given below : [NEET (UG) 2024]

(1) Both Statement-I and Statement-II are true

(2) Both Statement-I and Statement-II are false

(3) Statement-I is true but Statement-II is false

(4) Statement-I is false but Statement-II is true

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Q.4 Given below are two statements:

Statement-I: Concentrated urine is formed due to counter current mechanism in nephron.

Statement-II: Counter current mechanism helps to maintain osmotic gradient in the medullary interstitium.

In the light of the above statements, choose the most appropriate answer from the options given below. [RE-NEET (UG) 2024]

(1) Statement-I is correct but Statement-II is incorrect.

(2) Statement-I is incorrect but Statement-II is correct.

(3) Both Statement-I and Statement-II are correct.

(4) Both Statement-I and Statement-II are incorrect.

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Q.5 Which of the following factors is responsible for the formation of concentrated urine? [NEET (UG) 2019]

(1) Secretion of erythropoietin by Juxtaglomerular complex.
(2) Hydrostatic pressure during glomerular filtration.
(3) Low levels of antidiuretic hormone.
(4) Maintaining hyperosmolarity towards inner medullary interstitium in the kidneys.

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Q.6 Which of the following statements is correct? [NEET 2017]

(1) The descending limb of loop of Henle is impermeable to water
(2) The ascending limb of loop of Henle is permeable to water.
(3) The descending limb of loop of Henle is permeable to electrolytes.
(4) The ascending limb of loop of Henle is impermeable to water.

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Q.7 The part of nephron involved in active reabsorption of sodium is [NEET 2016 (Phase 2)]

(1) distal convoluted tubule
(2) proximal convoluted tubule
(3) Bowman's capsule
(4) descending limb of Henle's loop

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Q.8 Human urine is usually acidic because [AIPMT 2015]

(1) potassium and sodium exchange generates acidity
(2) hydrogen ions are actively secreted into the filtrate
(3) the sodium transporter exchanges one hydrogen ion for each sodium ion, in peritubular capillaries.
(4) excreted plasma proteins are acidic

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Q.9 Removal of proximal convoluted tubule from the nephron will result in [AIPMT 2015 (Cancelled)]

(1) no change in quality and quantity of urine
(2) no urine formation
(3) more diluted urine
(4) more concentrated urine.

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Q.10 The maximum amount of electrolytes and water (70 – 80 percent) from the glomerular filtrate is reabsorbed in which part of the nephron? [AIPMT 2012 (Prelims)]

(1) Ascending limb of loop of Henle
(2) Distal convoluted tubule
(3) Proximal convoluted tubule
(4) Descending limb of loop of Henle

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Q.11 Which one of the following statements in regard to the excretion by the human kidneys is correct? [AIPMT 2010 (Prelims)]

(1) Descending limb of loop of Henle is impermeable to water.
(2) Distal convoluted tubule is incapable of reabsorbing HCO_3^-.
(3) Nearly 99 per cent of the glomerular filtrate is reabsorbed by the renal tubules.
(4) Ascending limb of loop of Henle is impermeable to electrolytes.

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Q.12 If Henle's loop were absent from mammalian nephron, which one of the following is to be expected? [AIPMT 2003]

(1) There will be no urine formation.
(2) There will be hardly any change in the quality and quantity of urine formed.
(3) The urine will be more concentrated.
(4) The urine will be more dilute.

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Q.13 Concentration of urine depends upon which organ? [AIPMT 2000]

(1) Bowman's capsule
(2) Length of Henle's loop
(3) PCT
(4) Network of capillaries arising from glomerulus

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ANSWER KEY

Ques.	1	2	3	4	5	6	7	8	9	10	11
Ans.	**1**	**4**	**2**	**3**	**4**	**4**	**2**	**2**	**3**	**3**	**3**
Ques.	12	13									
Ans.	**4**	**2**									