

XI BIOLOGY ASSIGNMENT

1 Which of the following statements 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

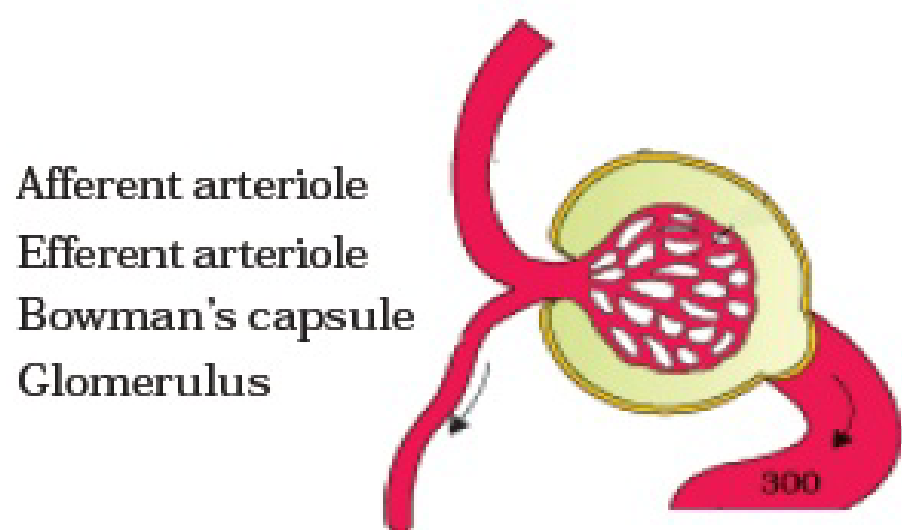
2 **Assertion: Atrial Natriuretic Factor acts as a check on the renin-angiotensin mechanism**

Reason: ANF can cause vasodilation (dilation of blood vessels) and thereby decrease the blood pressure

3 Sort the following into actively or passively transported substances during reabsorption of GFR:
 glucose, aminoacids, nitrogenous wastes, Na⁺, water

4 Name the following.
 (a) A chordate animal having flame cells as excretory structures.
 (b) Cortical portions projecting between the medullary pyramids in the human kidney.
 (c) A loop of capillary running parallel to the Henle’s loop.

5 Label the parts in the following diagram.



6 Match the abnormal conditions given in Column A with their explanations given in Column B and Choose the correct option

Column A	Column B
A. Glycosurea	i. Accumulation of uric acid in joints
B. Renal calculi	ii. Inflammation in glomeruli
C. Glomerular nephritis	iii. Mass of crystallised salts within the kidney
D. Gout	iv. presence of glucose in urine

Options:

- a. A-i, B-iii, C-ii, D-iv
- b. A-iii, B-ii, C-iv, D-i
- c. A-iv, B-iii, C-ii, D-i
- d. A-iv, B-ii, C-iii, D-i

7	<p>Match the terms given in Column I with their physiological processes given in Column II and choose the correct answer</p> <table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;">Column I</th> <th style="text-align: left;">Column II</th> </tr> </thead> <tbody> <tr> <td>A. Proximal convoluted tubule</td> <td>i. Formation of concentrated urine</td> </tr> <tr> <td>B. Distal convoluted tubule</td> <td>ii. Filtration of blood</td> </tr> <tr> <td>C. Henle's loop</td> <td>iii. Reabsorption of 70-80% of electrolytes</td> </tr> <tr> <td>D. Counter-current mechanism</td> <td>iv. Ionic balance</td> </tr> <tr> <td>E. Renal corpuscle</td> <td>v. maintenance of concentration gradient in medulla</td> </tr> </tbody> </table> <p> <input type="checkbox"/> a. A-iii, B-v, C-iii, D-ii, E-i <input type="checkbox"/> b. A-iii, B-iv, C-i, D-v, E-ii <input type="checkbox"/> c. A-i, B-iii, C-ii, D-v, E-iv <input type="checkbox"/> d. A-iii, B-i, C-iv, D-v, E-ii </p>	Column I	Column II	A. Proximal convoluted tubule	i. Formation of concentrated urine	B. Distal convoluted tubule	ii. Filtration of blood	C. Henle's loop	iii. Reabsorption of 70-80% of electrolytes	D. Counter-current mechanism	iv. Ionic balance	E. Renal corpuscle	v. maintenance of concentration gradient in medulla
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8	<p>a. Diuretics, _____, enhance losses of water and salt via the urine through interference with normal _____ mechanisms</p> <p>b. Diabetes insipidus is developed due to the non- production of _____ and the individual passes _____ litres of urine in 24 hours.</p>												