

Excretion – 2020 O Level 5090

1. Nov/2020/Paper_11/No.19

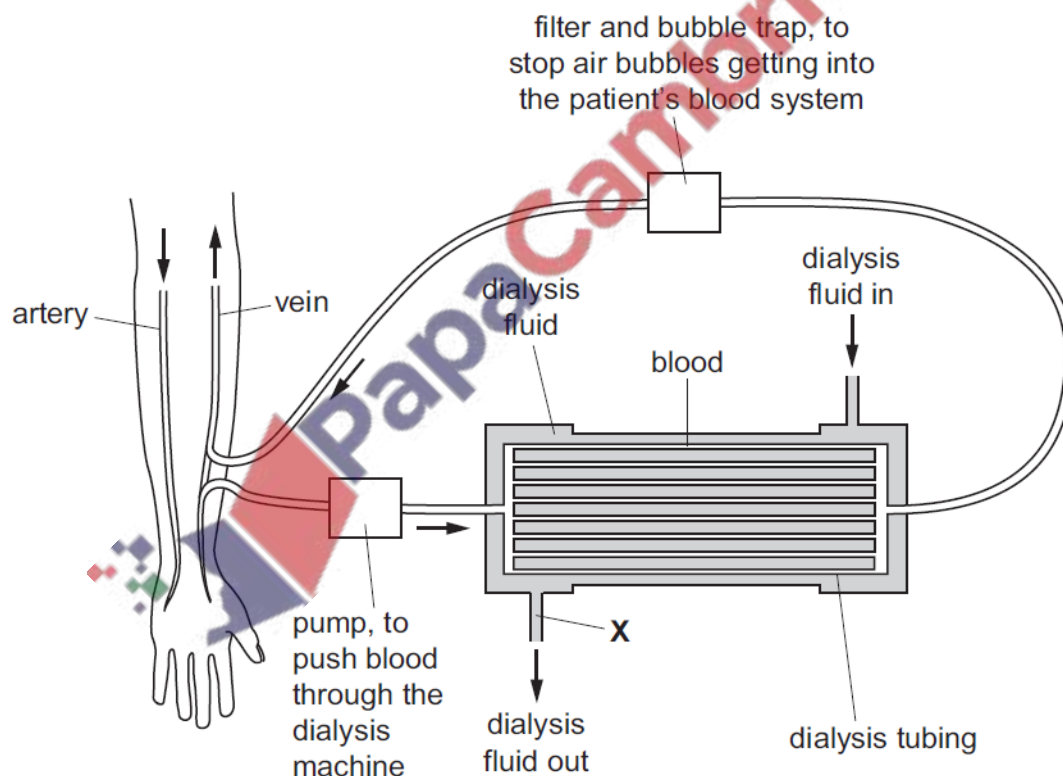
During dialysis, substances such as glucose, mineral salts, urea and water move between the patient's blood and the dialysis fluid.

Which processes are involved in these movements?

	active transport	diffusion
A	yes	yes
B	no	yes
C	yes	no
D	no	no

2. Nov/2020/Paper_12/No.19

The diagram shows a dialysis machine.



Which substance would **not** be present in a sample of the dialysis fluid taken from point X?

- A** glucose molecules
- B** salt ions
- C** plasma proteins
- D** urea molecules

The kidneys are organs of excretion.

(a) Define the term *excretion*.

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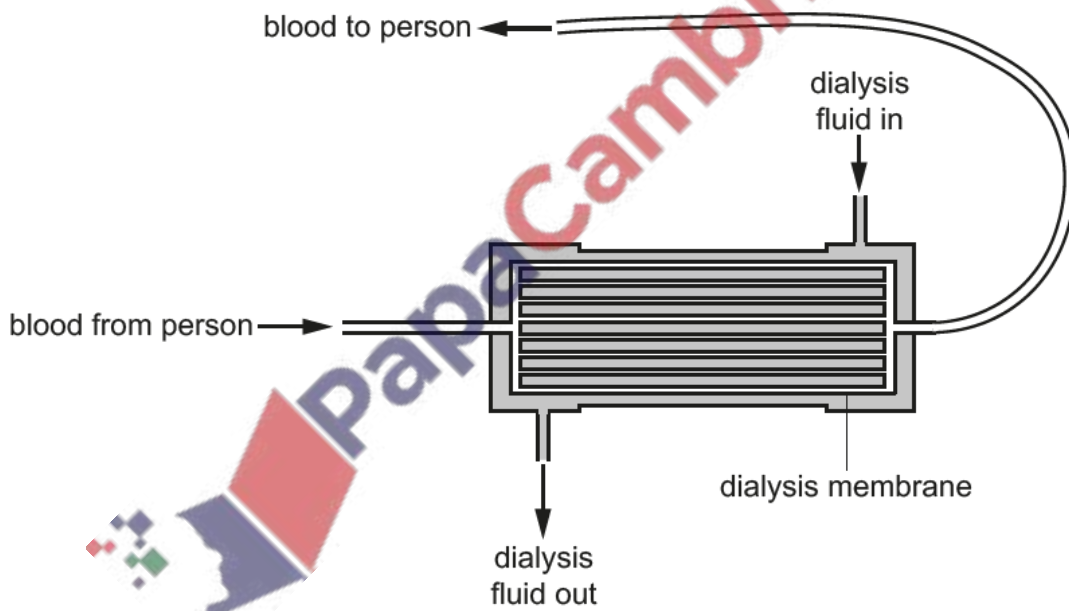
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(b) A person with kidney damage requires the process of dialysis to take place several times each week.

Dialysis is carried out using a kidney machine connected to the blood supply of the person.

The diagram shows a section through the internal structure of a kidney machine.



(i) Describe the structure of the dialysis membrane **and** explain how it functions.

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(ii) Explain why the dialysis fluid in the kidney machine must be continuously replaced. [5]

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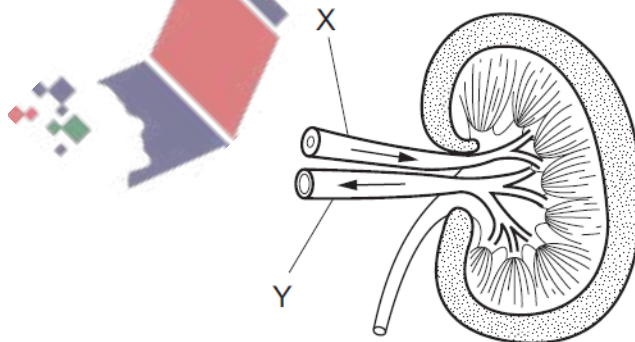
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4. Jun/2020/Paper_11/No.19

The diagram shows a kidney and blood vessels associated with it.

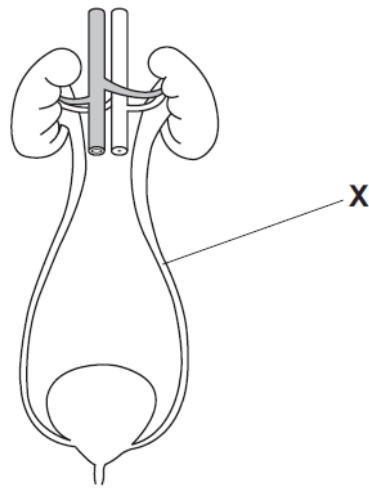


Which statements are correct?

- 1 Vessel X contains more urea than vessel Y.
- 2 Vessel Y contains urine.
- 3 Vessel X contains more oxygen than vessel Y.

A 1, 2 and 3 **B** 1 and 3 only **C** 1 only **D** 2 and 3 only

The diagram shows the human kidneys and their associated structures.



What is the structure labelled X?

- A renal artery
- B renal vein
- C ureter
- D urethra

