

GCSE Biology A (Gateway)

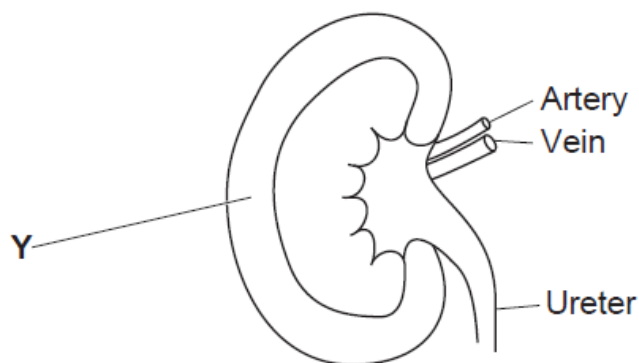
J247/01 B1-B3 and B7 Foundation (Foundation Tier)

Question Set 14

1

Look at the diagram.

It shows a vertical section through a kidney.



(a) (i) What is the name of part Y? [1]

(ii) Which liquid flows through the ureter? [1]

(iii) Draw an arrow in the ureter showing the direction that this liquid flows. [1]

(b) The kidney is important for water balance.

The table shows the measurements of water balance for two patients in hospital.

	Volume of water (ml)	
	Patient A	Patient B
Water taken into body in food and drinks	2500	2500
Water made in the body during respiration	200	200
Total input =	2700	2700
Water lost from kidneys in the form of urine	1900	1700
Water lost through skin, lungs and digestive system	1000	1000
Total output =

(i) Calculate the total output for Patient A and Patient B.

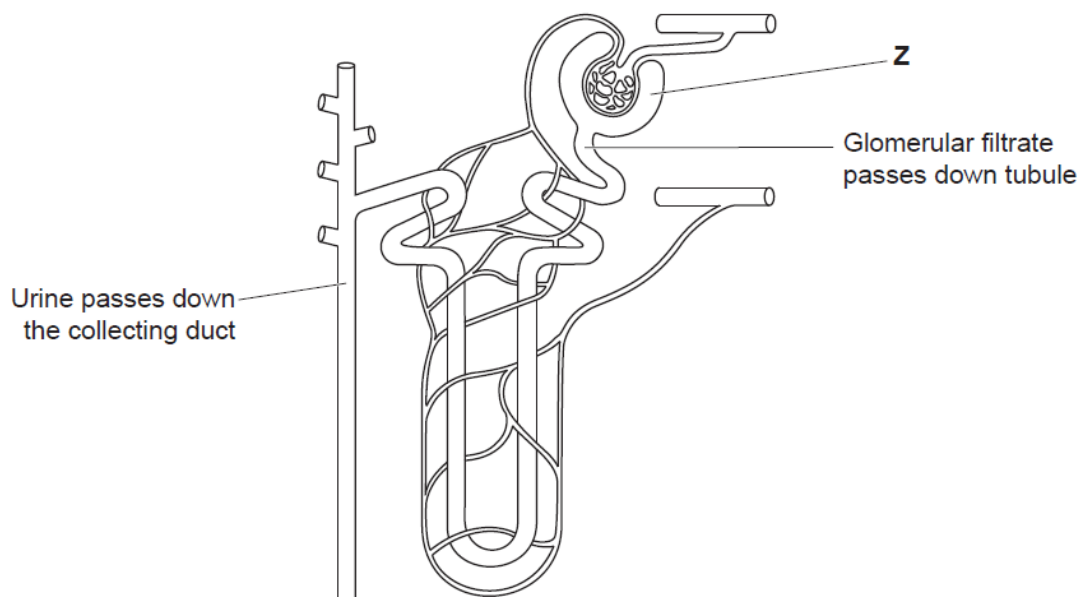
Patient A

Patient B [1]

(ii) Which patient needs treatment for their kidneys?

Explain the reasons for your choice. [2]

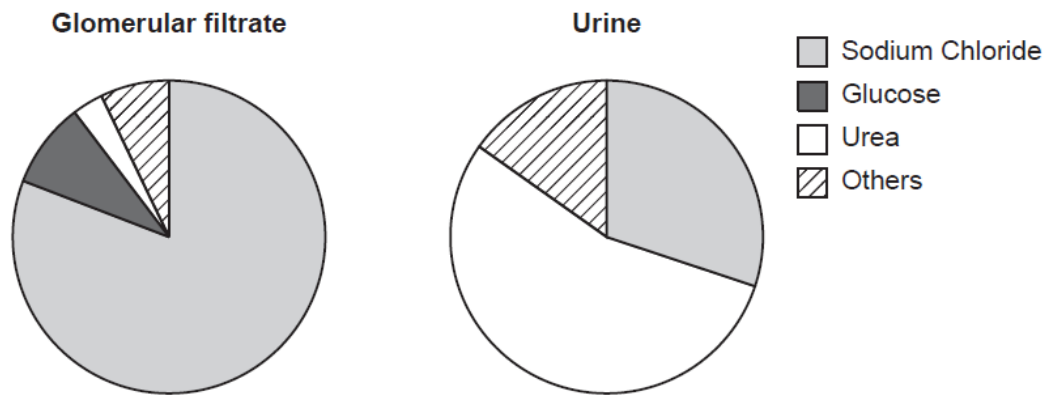
(c) Look at the diagram. It shows a kidney tubule (nephron).



(i) What is the name of part Z?

[1]

(ii) The diagram shows the composition of glomerular filtrate and urine.



What conclusions can be made about what happens between part **Z** and the collecting duct in the kidney tubule?

Use evidence from the diagram to support your answer.

[3]

Total Marks for Question Set 14: 10

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