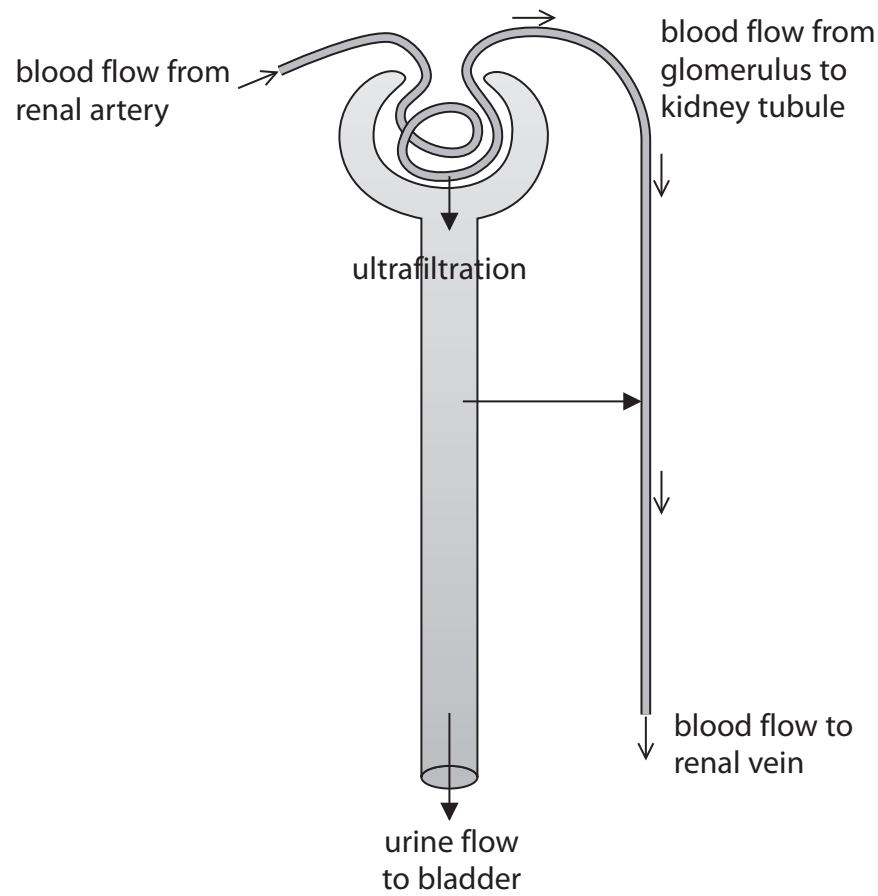


- 8 (a) The diagram shows part of a nephron in the human excretory system.



(Source: adapted from © Alila Medical Images/Alamy)

- (i) Explain how ultrafiltration occurs in the Bowman's capsule.

(2)

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- (ii) Explain the differences in the composition of the blood flowing through the renal artery and through the renal vein.

(4)

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- (b) The quantity of salt in the diet affects the concentration of urine produced.

An investigation is set up to test this statement.

This is the method used.

- ten people are each given a different food
- each food contains a different quantity of salt
- the volume of urine produced by each person is recorded each hour for six hours after eating the food

- (i) State the independent variable in this investigation.

(1)

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- (ii) Explain why this investigation is unlikely to produce valid results.

(2)

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- (iii) State one change to the method that would make the results more valid.

(1)

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(Total for Question 8 = 10 marks)



P 5 8 5 6 6 A 0 2 1 2 8