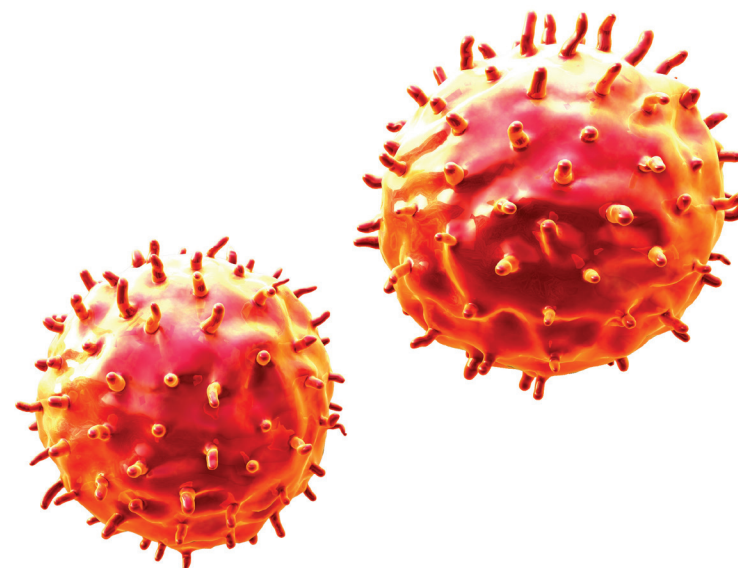


Interactive Example Candidate Responses

Paper 3 (May / June 2016), Question 8

Cambridge IGCSE™
Biology 0610



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8 Fig. 8.1 shows the structures that produce urine and excrete it from the body.

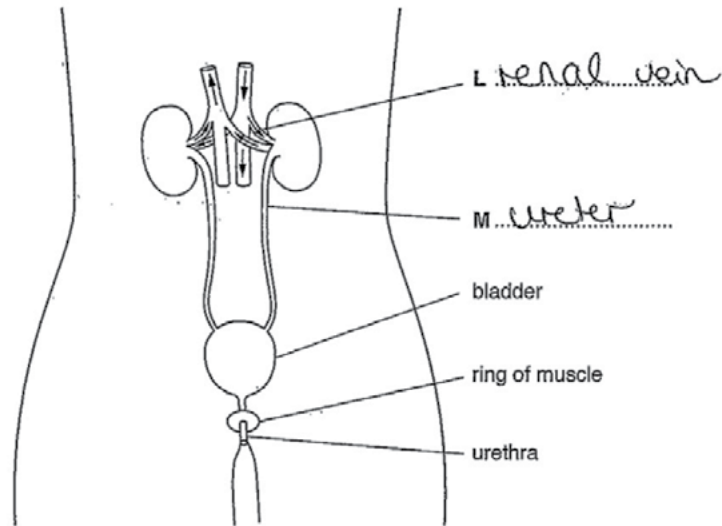


Fig. 8.1

(a) (i) Name the structures labelled L and M.

Write your answers on Fig. 8.1.

[2]

(ii) Urea is excreted in the urine.

Name the organ that produces urea and suggest how urea is transferred to the kidneys.

Urea is made in the liver.
Urea is ~~transferred~~ transferred to the kidneys by ~~it~~ in the blood.

[2]

Select
page

Your
Mark

8(a)(i)

8(a)(ii)

8(b)

8(c)

Q8	Mark scheme	
(a)(i)	L – renal artery ; M – ureter ;	2 marks
(a)(ii)	produced by: liver ; transferred in: blood/plasma/blood vessels/circulation ;	2 marks
(b)	1 student drank less water/ate fewer foods, containing water ; ignore numbered lines 2 student sweated more/AW ; A student had diarrhoea ; student vomited ; student lost a lot of blood ; 3 (as) it was a hotter day ; 4 (as) student exercised/student had a fever ; I renal failure on that day/student cried 5 student ate a lot of salty food ; 6 lower humidity so water (vapour) lost in exhalation ;	3 marks
(c)	1 screening/removal of large solids/twigs/plastic/etc. ; 2 settling out/grit settles to bottom of tank ; 3 microbes/bacteria decompose (digest) organic material ; 4 digestion of materials in liquid by (aerobic) microorganisms ; 5 aeration ; 6 materials in sludge digested by (anaerobic) bacteria ; 7 filtration ; A filtration once only unless qualified 8 chlorination or sterilisation/use of disinfectants/ bactericides/bacteria killed ;	3 marks

(b) In an investigation, the volume of urine produced by a student each day is measured.

The results are shown in Table 8.1.

Table 8.1

day	volume of urine /cm ³ per day
1	1440
2	1510
3	1410
4	1445
5	910
6	1445
7	1500

Suggest **three** possible reasons for the lower volume of urine produced by the student on day 5.

- 1 Low water intake
 - 2 High temperature
 - 3 Large amount of sweat produced
- [3]

(c) Outline **three** processes used in the treatment of sewage to make the water it contains safe for human use.

- 1 Filtering for removal of insoluble particles
 - 2 Adding chlorine to kill bacteria and pathogens (chlorination)
 - 3 Distillation
- [3]

[Total: 10]

Your
Mark

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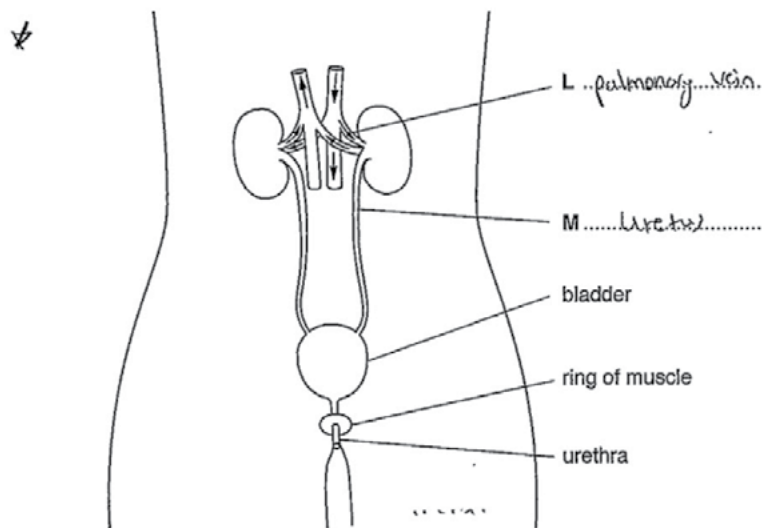


Fig. 8.1

(a) (i) Name the structures labelled L and M.

Write your answers on Fig. 8.1.

[2]

(ii) Urea is excreted in the urine.

Name the organ that produces urea and suggest how urea is transferred to the kidneys.

Urea is produced in the liver and the urea is transferred to the kidney by the blood.

[2]

Select page

Your Mark

8(a)(i)

8(a)(ii)

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Suggest **three** possible reasons for the lower volume of urine produced by the student on day 5.

- 1 The student ~~exercised~~ ~~exercised~~ exercised very hard on that day.
- 2 The student got a problem in his kidney on that day.
- 3 The day was very hot.
temperature in that

[3]

(c) Outline **three** processes used in the treatment of sewage to make the water it contains safe for human use.

- 1 bactericides are used to remove any bacteria found in water.
- 2 Chlorine is used for the chlorination of water which removes impurities and microbes to produce pure water.
- 3

[3]

[Total: 10]

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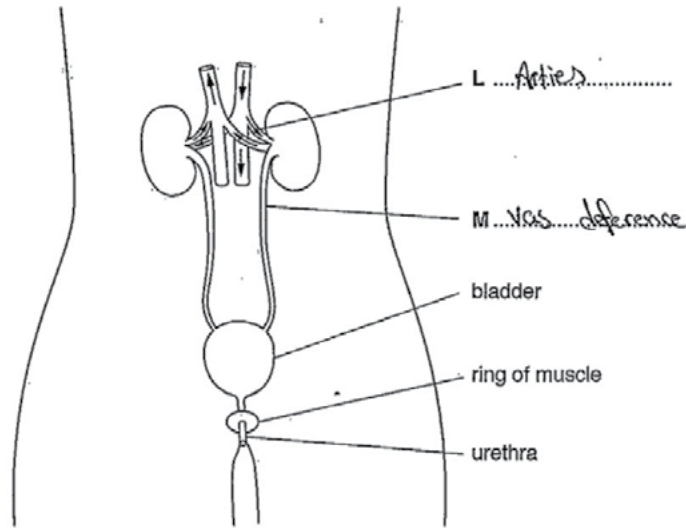


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Write your answers on Fig. 8.1.

[2]

(ii) Urea is excreted in the urine.

Name the organ that produces urea and suggest how urea is transferred to the kidneys.

Liver, the bile (with urea) from liver will
deliver the urea to the pancreas and the
pancreatic juice deliver it to the kidney. [2]

Select
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Suggest **three** possible reasons for the lower volume of urine produced by the student on day 5.

1 Due to the low amount of water in the body

2 Slight

3

[3]

(c) Outline **three** processes used in the treatment of sewage to make the water it contains safe for human use.

1 put chlorine in water

2 pass it through pipes to filter it

3

[3]

[Total: 10]

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