

Excretion in humans – 2022 November IGCSE 0610 Biology

1. **Nov/2022/Paper_11/No.25**

Which substances are excreted from the human body?

- 1 carbon dioxide
- 2 urea
- 3 water

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

2. **Nov/2022/Paper_13/No.25**

Which statement about the formation of urea is correct?

- A** Urea is formed in the kidneys from excess amino acids.
- B** Urea is formed in the liver from excess amino acids.
- C** Urea is formed in the kidneys from excess fatty acids.
- D** Urea is formed in the liver from excess fatty acids.

3. **Nov/2022/Paper_21/No.23**

Which substances are excreted from the human body?

- 1 carbon dioxide
- 2 urea
- 3 water

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

4. **Nov/2022/Paper_23/No.23**

Which statement about the formation of urea is correct?

- A** Urea is formed in the kidneys from excess amino acids.
- B** Urea is formed in the liver from excess amino acids.
- C** Urea is formed in the kidneys from excess fatty acids.
- D** Urea is formed in the liver from excess fatty acids.

(a) Fig. 5.1 is a diagram of some of the organs involved in the production and release of urine.

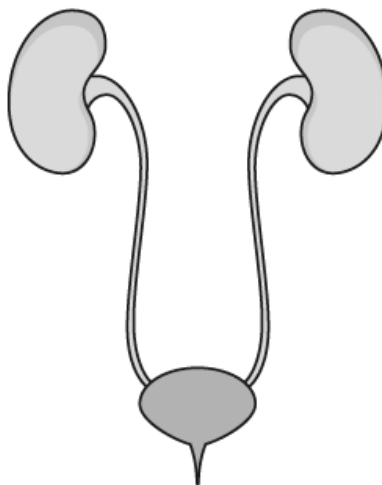


Fig. 5.1

Draw an **X** on Fig. 5.1 to identify the position of the bladder. [1]

(b) A scientist recorded the volume of urine released by different species of mammal during a 24-hour period.

The scientist collected urine from five individuals of each species of mammal.

The highest and lowest volumes of urine released were recorded to give a range for each species of mammal.

Table 5.1 shows the results.

Table 5.1

| species of mammal | range of volumes of urine released in 24 hours/dm ³ |
|-------------------|--|
| A | 2.10 – 12.60 |
| B | 15.30 – 40.50 |
| C | 0.08 – 0.16 |
| D | 1.00 – 2.00 |
| E | 0.60 – 2.40 |

(i) State the species of mammal that released the lowest volume of urine in Table 5.1.

..... [1]

(ii) State the species of mammal that has the largest range shown in Table 5.1.

..... [1]

(c) Explain why the volume of urine produced in humans can vary throughout the day.

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..... [3]

(d) Urine contains urea, excess water and excess ions.

The list shows some organs.

- kidney
- liver
- ureter
- urethra
- vagina

(i) State the name of the organ from the list that produces urea.

..... [1]

(ii) State the name of the organ from the list that excretes urea.

..... [1]

(e) State the name of the gas that is excreted through the lungs.

..... [1]

[Total: 9]

