

Revision Sheet

IGCSE Biology · Unit 13 Excretion in humans

6 vocabulary items · 22 marks of exam questions (13 questions)

Part 1 · Vocabulary review (6 items). The terms this unit is examined on most. Mark it yourself from the answer key.

Section A · Chinese to English

Write the English word.

1.

[1]
2.

[1]
3.

[1]
4.

[1]
5.

[1]
6.

[1]

Part 2 · Exam questions (22 marks, 13 questions) begins on the next page. They are ordered easy to difficult and none of them has been set before.

7 In healthy people, which substance is completely reabsorbed into the blood from the kidney nephrons?

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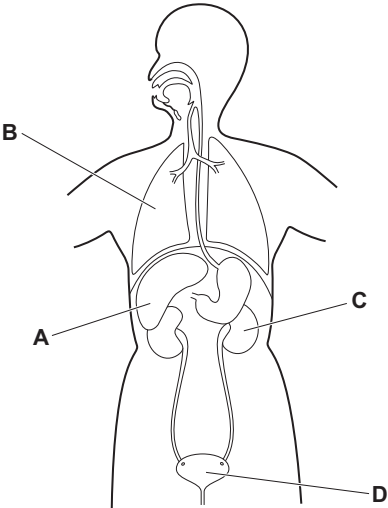
- A glucose
- B salts
- C urea
- D water

8 Which process takes place as the filtrate from a glomerulus passes along a nephron?

☐

- A production of amino acids
- B excretion of oxygen
- C production of urea
- D reabsorption of glucose

9 Which labelled organ has a major role in the assimilation of amino acids by converting them to proteins?

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- 10** Which row shows where glucose will be found in the body of a healthy human after eating a meal?

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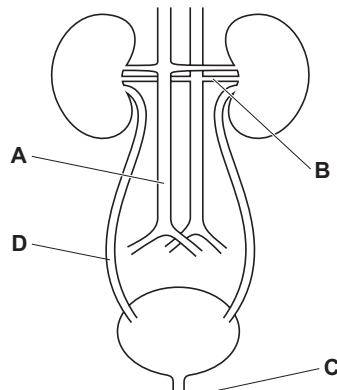
	renal artery	renal vein	glomerulus	nephron	ureter
A	yes	no	yes	yes	yes
B	yes	yes	no	no	no
C	yes	yes	yes	yes	no
D	no	yes	no	no	yes

- 11** What is the name of the process that produces urea and the organ where urea is formed?

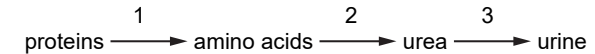
☐

	process producing urea	organ where urea is formed
A	deamination	kidney
B	denitrification	kidney
C	deamination	liver
D	denitrification	liver

- 12** In the diagram, which label identifies the urethra?

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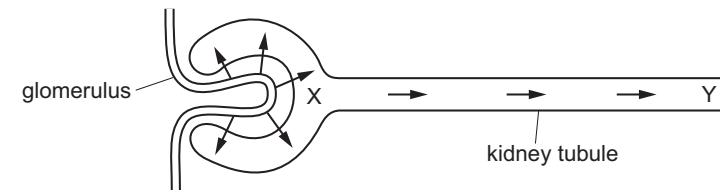
- 13** A person eats foods containing proteins. Some of the amino acids in the proteins are converted to urea and excreted from the body.

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Which row identifies the sites of processes 1, 2 and 3?

	site of process 1	site of process 2	site of process 3
A	stomach	liver	kidney
B	liver	kidney	bladder
C	stomach	kidney	liver
D	liver	stomach	kidney

- 14** Which statement correctly explains the difference in glucose concentration in the kidney tubule between X and Y?

☐

- A** The glucose concentration is higher at X than at Y because glucose moves out of the kidney tubule by osmosis.
- B** The glucose concentration is higher at X than at Y because glucose has been actively transported out of the kidney tubule.
- C** The glucose concentration is higher at Y than at X because glucose diffuses into the kidney tubule.
- D** The glucose concentration is higher at Y than at X because glucose is actively transported into the kidney tubule.

15 The table shows the concentration of sodium ions in blood plasma, in glomerular filtrate (the liquid that passes through the glomerulus) and in urine.

☐

	blood plasma	glomerular filtrate	urine
concentration of sodium ions /arbitrary units	141	141	127

What is the percentage concentration of sodium ions reabsorbed in the kidney tubules?

- A** 0.0% **B** 9.9% **C** 10.9% **D** 14.0%

16 Which term describes the removal of the nitrogen-containing part of amino acids to form urea?

☐

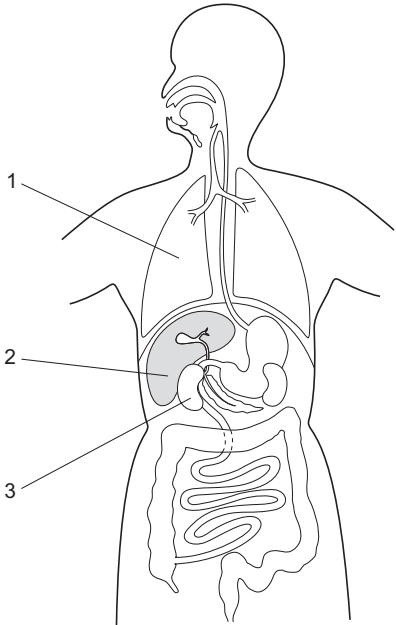
- A** assimilation
B deamination
C denaturation
D digestion

17 Which statement about urea is correct?

☐

- A** Urea is formed from excess amino acids in the kidneys and excreted by the liver.
B Urea is formed from excess glucose in the liver and egested by the kidneys.
C Urea is formed from excess glucose in the kidneys and egested by the liver.
D Urea is formed from excess amino acids in the liver and excreted by the kidneys.

18 The diagram shows some of the organs in the human body.

☐

Which row matches the function to the correct organ?

	excretes carbon dioxide	excretes urea	produces urea
A	1	2	3
B	1	3	2
C	2	3	1
D	2	1	3

19 (a) Fig. 7.1 is a diagram showing some of the organs in the human body.

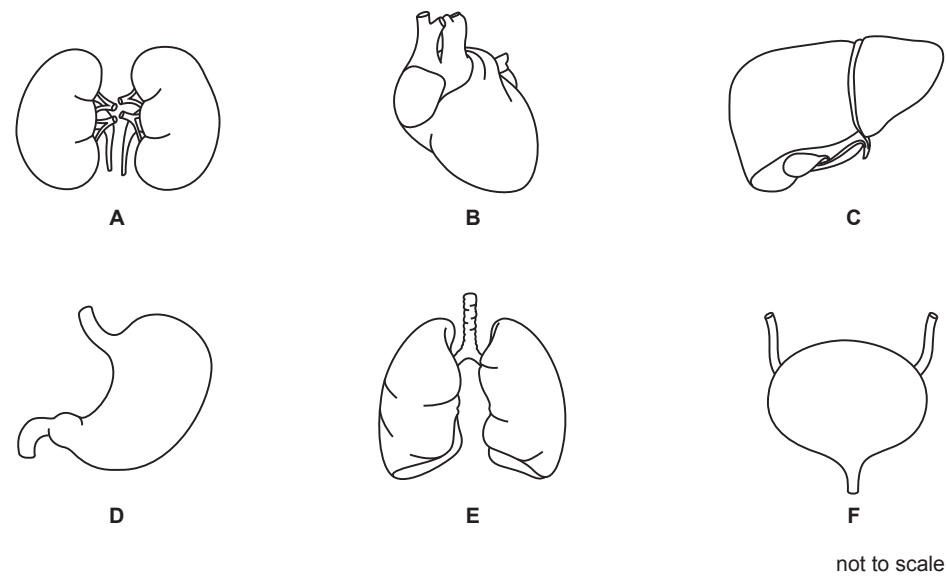


Fig. 7.1

Table 7.1 shows the names of some of the organs in Fig. 7.1, the identifying letters of some of these organs and their functions.

Complete Table 7.1.

Table 7.1

name	letter in Fig. 7.1	function
		excretes carbon dioxide from the body
heart	B	
	F	stores urine
		excretes urea, excess water and ions

[6]

(b) State the names of **two** organs from the human female reproductive system.

1
2 [2]

(c) Excretion and reproduction are two characteristics of all living organisms.

Place ticks (✓) in **two** boxes to show other characteristics of all living organisms.

breathing	
eating	
growing	
moving	
sleeping	
talking	

[2]

[Total: 10]