



CANDIDATE
NAME

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NUMBER

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NUMBER

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BIOLOGY

0572/03

Paper 3

October/November 2011

1 hour 15 minutes

Additional Materials: Answer Paper

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name in the spaces provided at the top of this page.
 DO NOT WRITE IN ANY BARCODES.

Section A

Answer **all** questions.

Write your answers in the spaces provided on the question paper.

Section B

Answer **both** questions.

Write your answers on the separate answer paper provided.

Write your Centre number, candidate number and name on each sheet of answer paper you use.

At the end of the examination fasten all sheets of answer paper to this question paper using the string provided.

You may use a calculator.

Do not use staples, paper clips, highlighters, glue or correction fluid.

The number of marks is given in brackets [] at the end of each question or part question.

You are advised to spend no longer than 40 minutes on Section A.

For Examiner's Use	
Section A	
1	
2	
3	
4	
5	
6	
Section B	
7	
8	
TOTAL	

This document consists of 9 printed pages and 3 blank pages.

Section A

Answer all questions in this section in the spaces provided.

1 Fig. 1.1 shows an enlarged cell from an organ of a plant found on land.

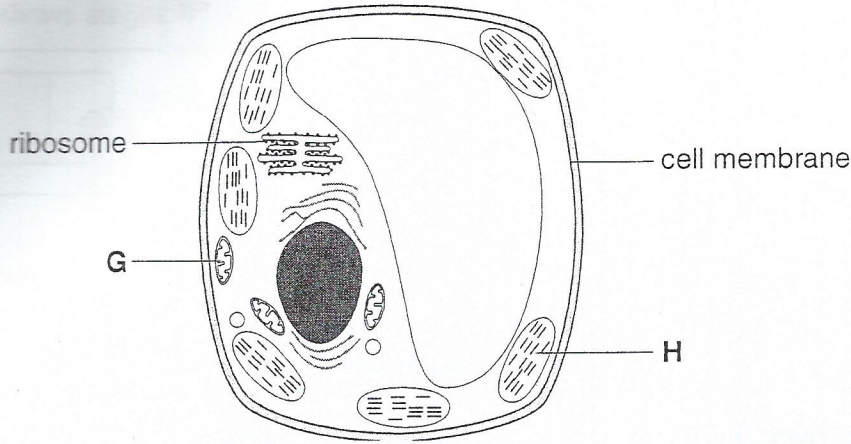


Fig. 1.1

(a) (i) Identify structures G and H.

G

H [2]

(ii) Suggest a plant organ in which the cell in Fig. 1.1 may be found.

..... [1]

(iii) State the reason for your answer in (a)(ii).

..... [1]

(b) State the function of the following structures:

(i) cell membrane

..... [1]

(ii) ribosomes

..... [1]

[Total: 6]

2 Fig. 2.1 shows a cross section of a blood vessel, in which a blood clot has formed after an injury.

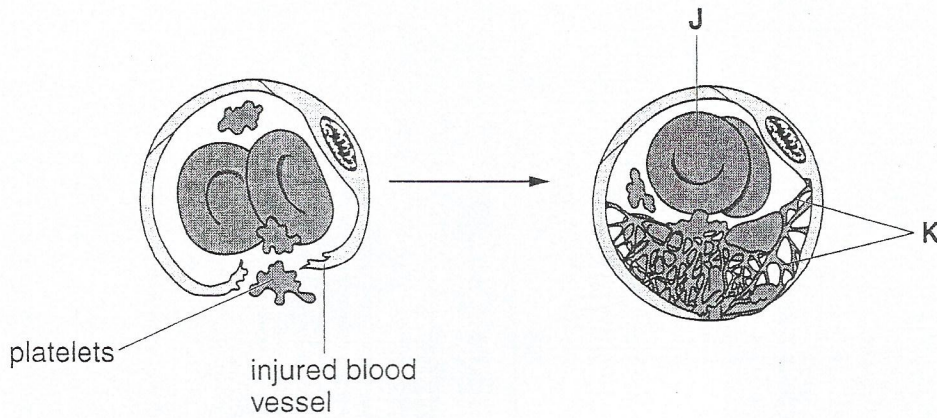


Fig. 2.1

(a) Identify:

cell J

component K of the blood clot. [2]

(b) Describe the changes that took place and resulted in the formation of a clot as shown in Fig. 2.1.

.....

.....

.....

.....

..... [4]

(c) Name **one** type of cell, apart from that labelled on Fig. 2.1, which may be found where the blood vessel is damaged and describe its role at the injury.

type of cell

role at the site of injury [2]

[Total: 8]

3 Fig. 3.1 is part of the human blood circulatory system showing blood vessels 1 to 7.

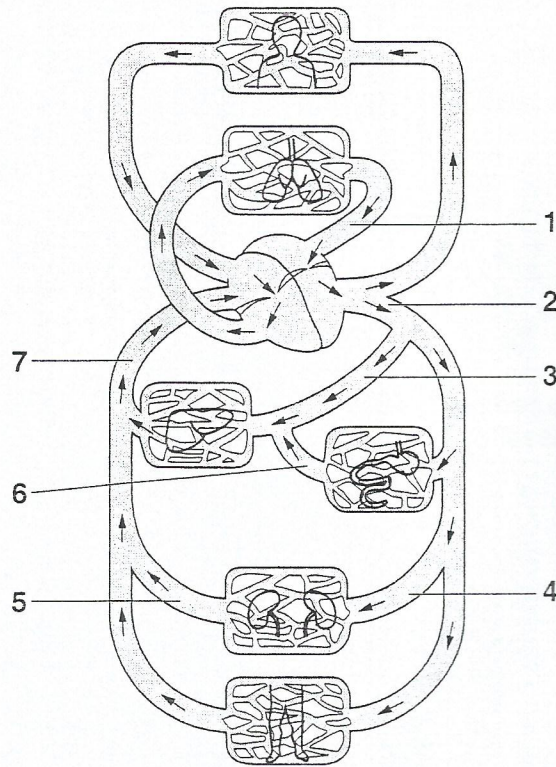


Fig. 3.1

Using the numbers 1 to 7 on Fig. 3.1, complete Table 3.1 by identifying the blood vessel described. The first one has been done for you.

Table 3.1

description of blood vessel	number of blood vessel
the largest artery	2
carries oxygenated blood under low pressure	
has the greatest amount of nutrients	
vein with lowest urea content	
the hepatic artery	

[4]

[Total: 4]

- 4 Fig. 4.1 shows the amount of urea in Neo's blood and Tefo's blood before and after suffering kidney and liver failure respectively. **K** is a point where Neo's kidney started to fail, while **L** is a point where Tefo's liver started to fail.

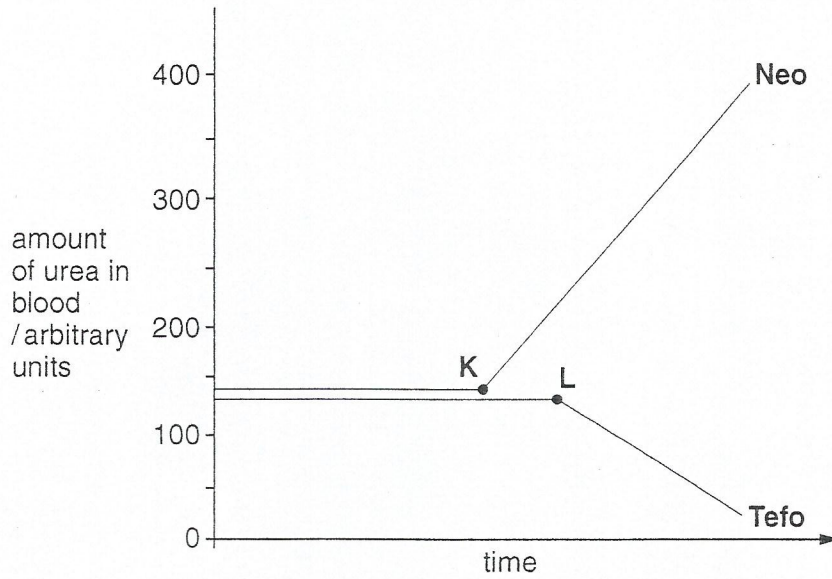


Fig. 4.1

- (a) Describe and explain the change in the amount of urea in **Neo's** blood.

.....

 [4]

- (b) Explain the change in the amount of urea in **Tefo's** blood after point **L**.

.....

 [2]

- (c) Suggest how reduced blood flow to a healthy kidney would affect its function.

.....

 [3]

[Total: 9]

5 Fig. 5.1(a) and Fig. 5.1(b) show two methods by which a baby may be fed milk.



Fig. 5.1(a)

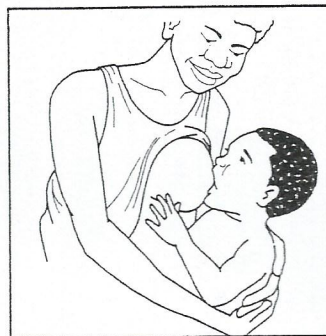


Fig. 5.1(b)

(a) Identify the feeding methods shown.

Fig. 5.1(a):

Fig. 5.1(b): [1]

(b) State **two** disadvantages to a baby fed through the method shown in Fig. 5.1(a).

.....
.....
..... [2]

(c) Suggest an explanation why doctors may advise against the use of the method shown in Fig. 5.1(b).

.....
..... [2]

[Total: 5]

6 Fig. 6.1 shows the carbon cycle.

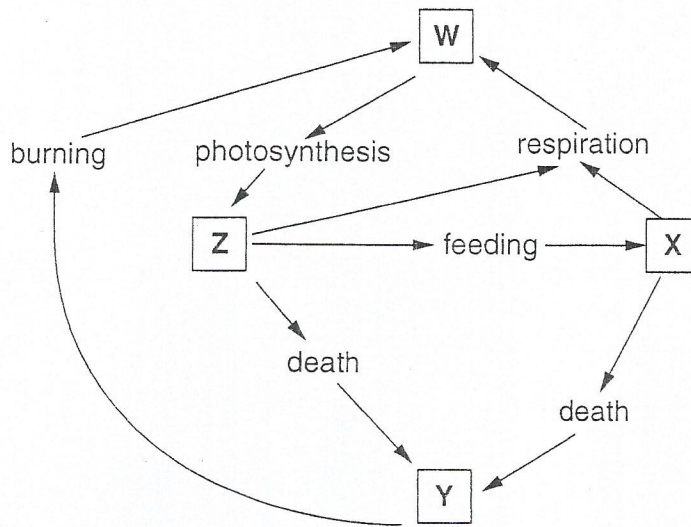


Fig. 6.1

(a) W, X, Y and Z are carbon compounds. The compounds are described in Table 6.1. Use the letters W, X, Y and Z to complete Table 6.1 by identifying the compounds described.

Table 6.1

description of compound	letter
carbon compounds in animals	
carbon compounds in plants	
carbon compound in air	
carbon compounds in fossil fuels	

[4]

(b) Name **one** group of micro-organisms involved in the process of decay.

..... [1]

(c) Describe **three** ways in which photosynthesis differs from respiration.

.....

 [3]

[Total: 8]

Section B

Answer **both** questions.

Write your answers on the separate answer paper provided.

- 7 Fig. 7.1 shows stages **R1** to **R4** of the reproduction of a fresh water organism.

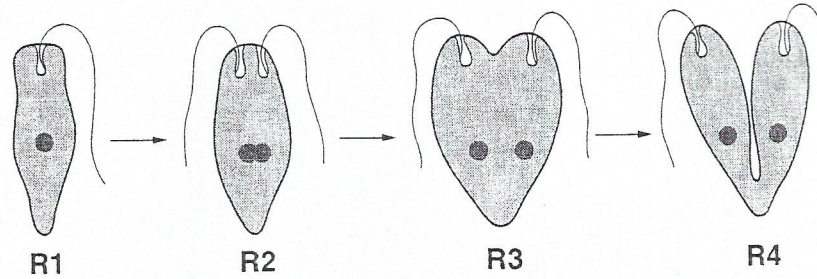


Fig. 7.1

- (a) Name the group to which the organism belongs and outline the characteristics which distinguish it from bacteria. [4]
- (b) Describe and explain stages **R1** to **R4** shown in Fig. 7.1. [5]

Fig. 7.2 shows another fresh water organism. Stages **G1** to **G4** show how it obtains food.

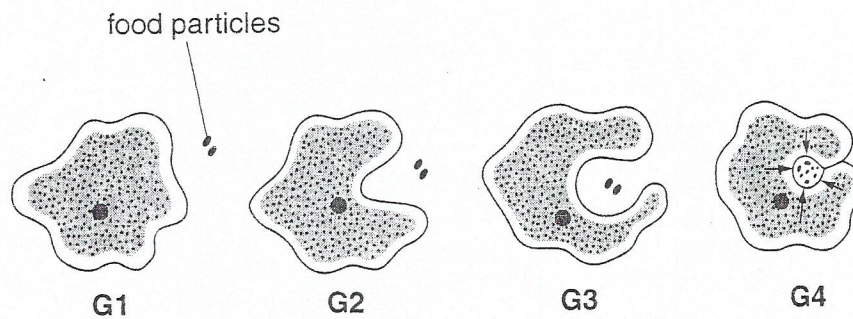


Fig. 7.2

- (c) Describe and explain the changes shown by stages **G1** to **G4** in Fig. 7.2. [4]
- (d) Suggest how the organisms shown in Fig. 7.1 and Fig. 7.2 move from place to place. [2]

[Total: 15]