

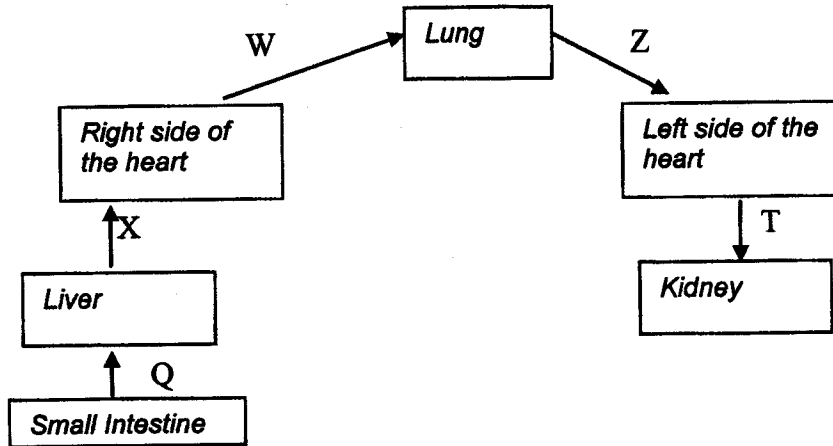
Adm.no.....Name.....Class.....

FORM THREE BIOLOGY END OF TERM 3 EXAM.

BIOLOGY PAPER 2 TERM 3 2014.

Time 2 Hours

1. The arrow on the diagram below shows the direction of blood flow between organs in the part of the human blood system. The letters Q, X, W, Z and T represents blood vessel.



(a). Name the blood vessel represented by letters:- Q and X (2mks)

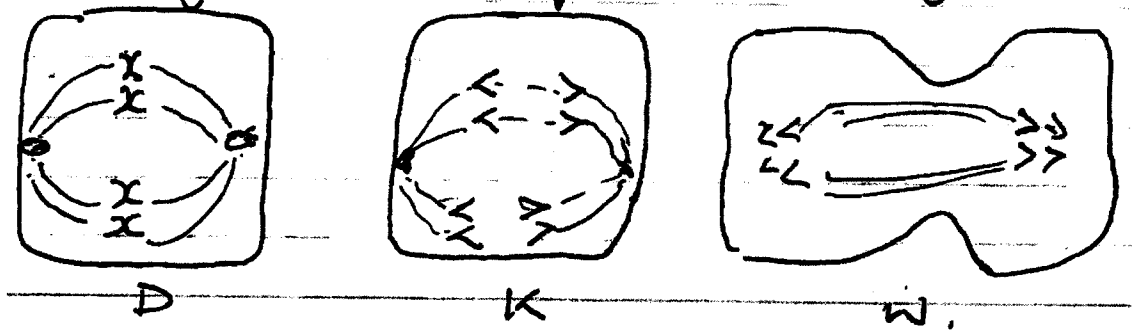
(b). How does blood in vessel Q differ from the blood in vessel X in the body? (1mk)

(b) On the diagram above, draw an arrow from the kidney to the organ to which the blood flows after leaving the kidney. (1mk)

(c) State two structural differences between blood vessel W and Z. (2mks)

(d) Name two functions of the blood apart from transport. (2mks)

2. The diagram below represents some stages in mitosis.



Name the stages represented by letters D, K and W.

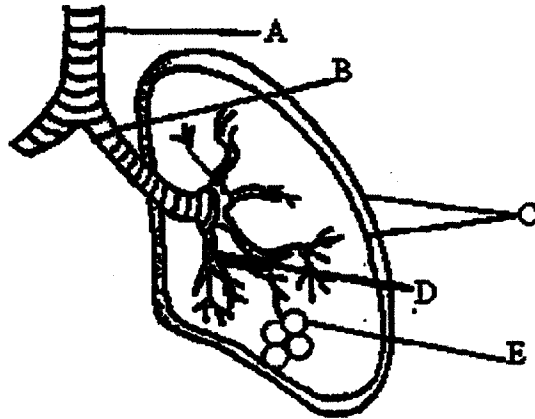
(3mks)

(a) Draw a diagram to show how the cell would appear during stage K of the first meiotic division. (2mks)

(b) Name three regions in plants where cells actively undergo mitosis. (3mks)

(3mks)

3. Study the diagram below and answer the questions that follow



a). Name the parts labeled

A

B

C

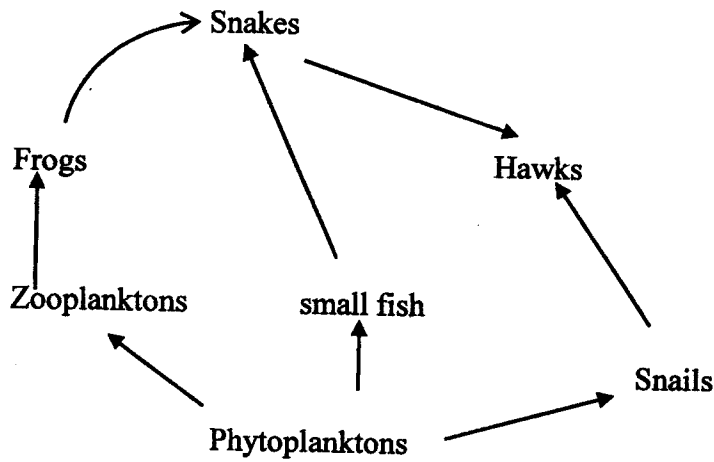
D. (2 marks)

b) State the function of the fluid found in between the parts marked C. (1 mark)

c) How is the part labeled E adapted to its function. (4 marks)

d) State the significance of rings of cartilage found around the part marked A and B. (1 mark)

4. The diagram below represents a feeding relationship in an ecosystem.



(a) Name the type of ecosystem represented by the above food web (1mk)

(b) Name the organism in the food web that

(i) Is a producer (1mk)

(ii) Occupies the highest trophic level. (1mk)

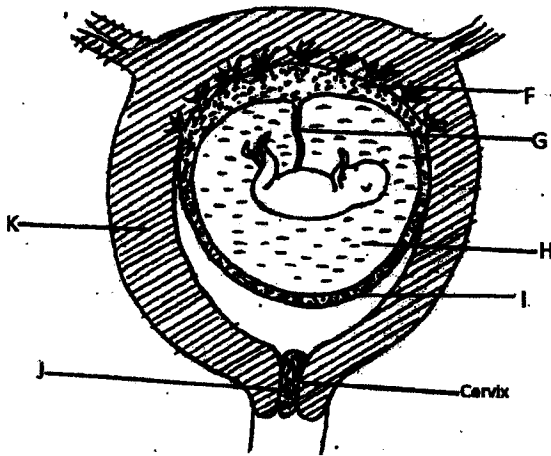
(c) (i) Write a food chain that ends with the hawk as a quaternary consumer. (1 mk)

(ii) State two short term effects on the above ecosystem if all the small fish were killed (2mks)

(d) (i) How does oil spills lead to death of fish? (1mk)

(ii) Name one other cause of water pollution apart from oil spills. (1mk)

5. The diagram below represents a developing foetus.



(a) Name the parts labeled F, I and J. (3 mks)

F.....

I.....

J.....

(b) Give two functions of the part labeled H. (2 mks)

(c) Name two substances that pass through the part labeled G from the foetus to the mother. (2 mks)

- (d) If the ovary of the expectant mother was removed after three months, the pregnancy goes to full term without being interrupted. Explain this observation. (1 mk)

SECTION B: (40 MARKS)

Answer question 6 (compulsory) and EITHER question 7 or 8 in the spaces provided after question 8.

6. The table below shows how the quantities of sweat and urine vary with external temperature.

External temperature °C	Urine cm ³ /hr	Sweat cm ³ /hr
0	100	5
5	90	6
10	80	10
15	70	20
20	60	30
25	50	60
30	40	120
35	30	200

- a) On the same graph, plot the quantities of urine and sweat (Y-axis) produced against the external temperature (7mks)
- b) At what temperatures are the amounts of sweat and urine produced equal? (1mk)
- c) What happens to the amount of sweat produced as the temperature rises? Explain the observation. (3mks)
- d) Explain the observation made on the amount of urine produced as the temperature increases. (3mks)

e) How is the skin adapted for temperature regulation?

(6mks)

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7. Describe how fruits and seeds are suited to their modes of dispersal.

(20mks)

8. (a) Define pollution.

(2 marks)

b) Describe water pollution under the following.

i) Causes.

(6 marks)

ii) Effects of pollutants on plants and animals.

(6 marks)

iii) Methods of controlling pollution.

(6 marks)

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A series of 20 horizontal dotted lines spanning the width of the page, intended for handwritten notes or answers.