



Aldenham School

I3+ Sample Paper

Subject: Biology

Name _____

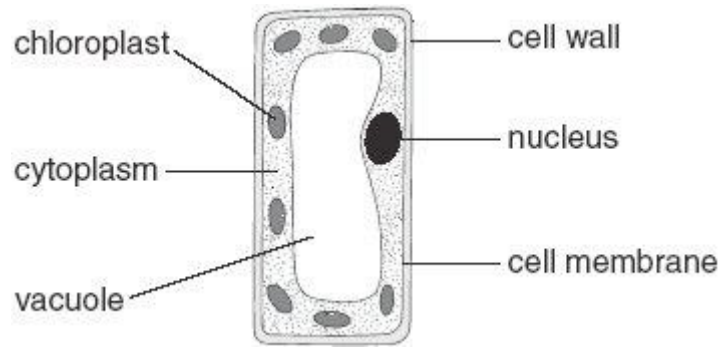
School _____

Time allowed: 20 mins (+5mins Extra Time)

Instructions:

Mark: _____ / 30

Q1. The diagram below shows a plant cell.



(a) In which part of a plant would you find this type of cell?

.....

1 mark

(b) (i) Give the function of the nucleus.

.....
.....

1 mark

(ii) Give the function of the chloroplasts.

.....
.....

1 mark

(iii) Give the function of the cell wall.

.....
.....

1 mark

(c) Give the names of **two** labelled parts that are **not** present in animal cells.

1.

2.

1 marks

- (d) Tick **one** box in each row to show whether the statement is true for photosynthesis **or** for respiration.

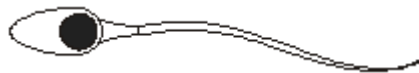
statement	photosynthesis	respiration
carbon dioxide is produced		
light is needed		
it occurs in plants and animals		
oxygen is produced		

2 marks
maximum 7 marks

- Q2.** Choose words from the box below to answer **all** the questions.

cell division	digestion	fertilisation	foetus	genes
intestine	ovary	ovum (egg)	sperm	testis
				uterus

(a)



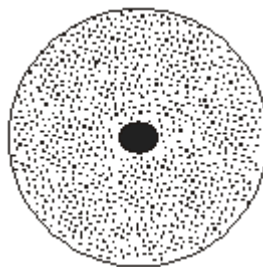
A

- (i) What is the name of cell A?

.....

1 mark

(b)



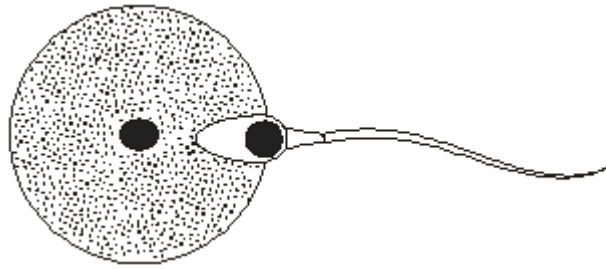
B

- (ii) Where is cell B produced?

.....

1 mark

(c)



C

not to scale

What process is shown in C? Choose your answer from the box above.

.....

1 mark

(d) The diagram shows a baby developing inside its mother.



(i) Which word means an unborn baby? Choose your answer from the box above.

.....

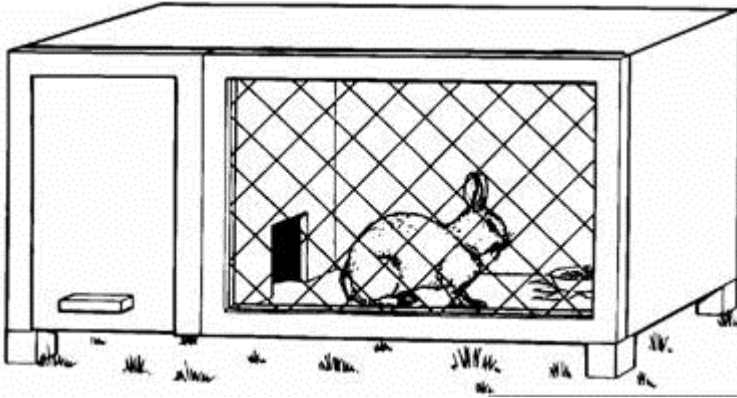
1 mark

- (ii) Where does the unborn baby develop? Choose your answer from the box above.

.....

1 mark
maximum 5 marks

- Q3.** Andrew put his rabbit's cage on the grass.



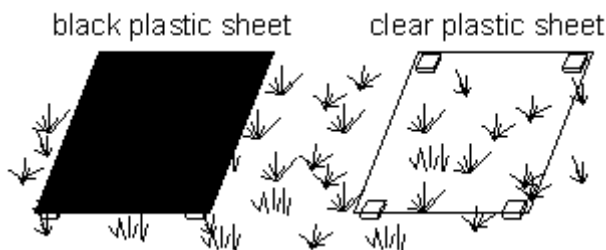
A week later, the grass under the cage had turned yellow.

- (a) Give **one** reason why the grass had turned yellow.

.....
.....

1 mark

- (b) Andrew wanted to test why the grass had turned yellow. He put two sheets of plastic just above another patch of grass. One sheet was black and the other sheet was clear.



A week later, the grass under the black sheet was yellow. The grass under the clear sheet was green.

(i) Explain why he used the clear plastic sheet as well as the black sheet.

.....
.....

1 mark

(ii) Andrew left the black sheet there for several more weeks.
What happened to the grass under it?

.....
.....

1 mark

(c) Tick the boxes by **two** things which **both** rabbits **and** grass plants can do.

- they eat
- they grow
- they move from place to place
- they reproduce
- they breathe in and out

1 marks
Maximum 4 marks

Q4. Sharon is riding her horse. She is wearing a riding hat.



(a) Give the name of **one organ** the riding hat protects.

.....

I mark

(b) The horse is a mammal.
Give **one** fact about horses that shows they are mammals.

.....

I mark

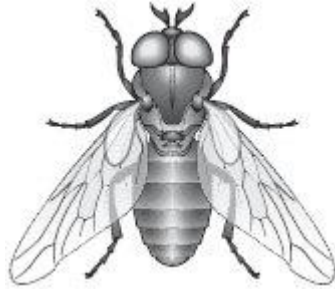
(c) When the horse is running, some of its organs do more work.

Draw a line from each organ to show what it does.
Draw only **two** lines.

organ	what the organ does
heart	It takes in oxygen faster.
	It moves the bones faster.
lung	It digests food faster.
	It pumps blood faster.

I mark

(d) The drawing shows a horsefly.



- (i) The horsefly is an insect.
Female horseflies bite horses and feed on their blood.
Male horseflies feed on plants.

Draw a line from each horsefly below to the word that describes the way it feeds.

Draw only **two** lines.

horsefly

describing word

female horsefly

herbivore

carnivore

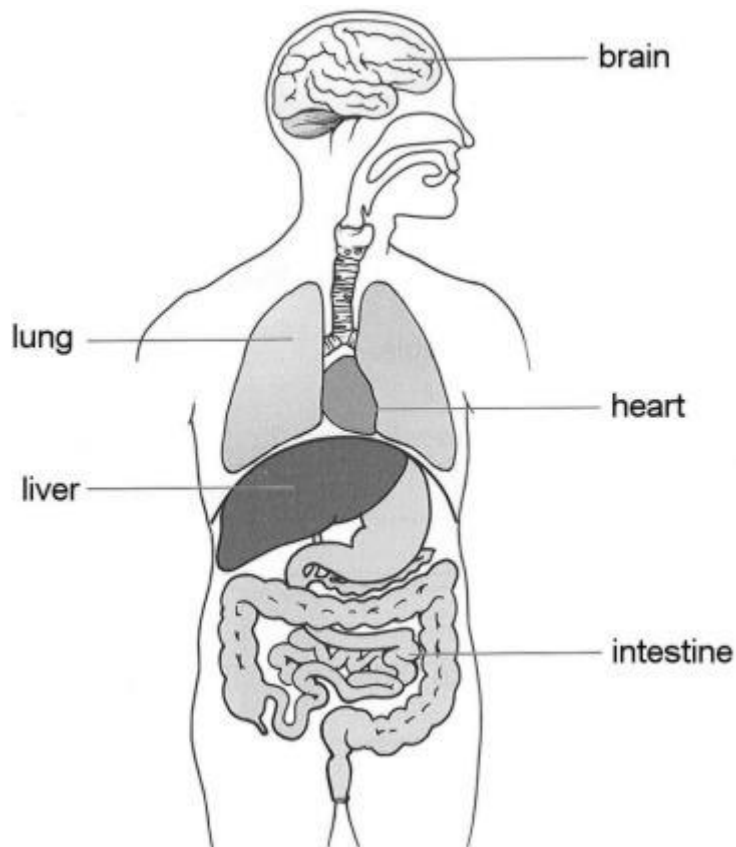
male horsefly

producer

prey

1 mark
maximum 4 marks

Q5. The diagram shows some of the organs of the human body.



(a) The heart pumps blood around the body.

(i) What useful gas does the blood take in from the air in the lungs?

.....

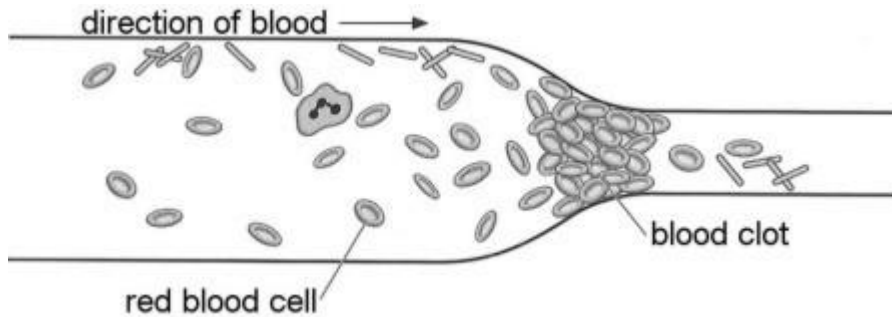
1 mark

(ii) What useful substance does the blood take in from the intestine?

.....

1 mark

- (b) Blood vessels carry blood to organs of the body. Sometimes a blood clot forms in a blood vessel as shown below.



a blood vessel

not to scale

A blood clot may stop an organ working properly.
Give **one** reason for this.

.....
.....

1 mark

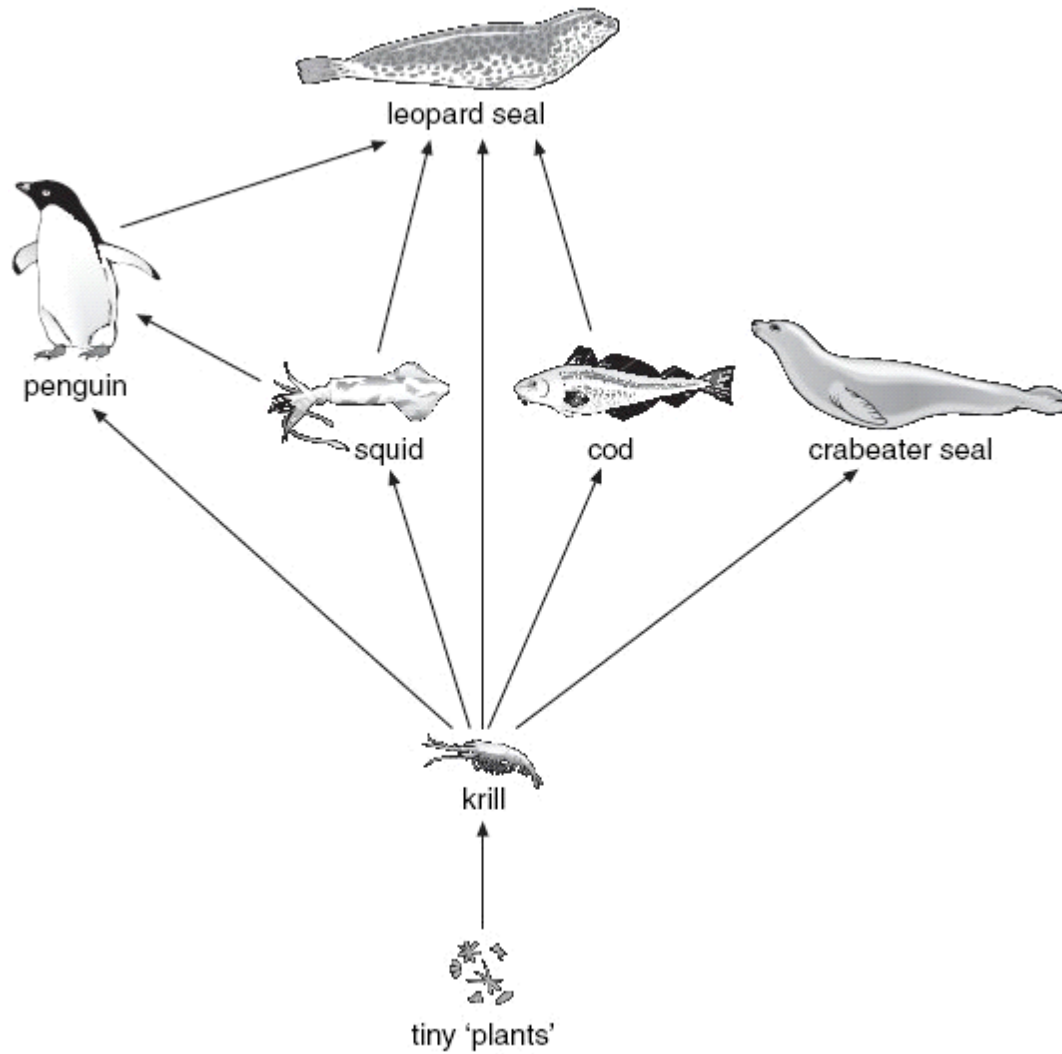
- (c) Rahma cut his foot on a piece of glass. A scab formed over the cut.
Give **one** way a scab protects the body.

.....
.....

1 mark
maximum 4 marks

Q6.

The drawing below shows part of a food web in the sea around Antarctica.



not to scale

(a) **From the food web**, give the names of **two** animals that **only** eat krill.

1.

1 mark

2.

1 mark

(b) (i) Which word describes the plants in a food web?
Tick the correct box.

producers	<input type="checkbox"/>	predators	<input type="checkbox"/>
herbivores	<input type="checkbox"/>	carnivores	<input type="checkbox"/> 1 mark

(ii) Krill are small animals that eat tiny plants.

Which word describes krill in the food web?
Tick the correct box.

producers	<input type="checkbox"/>	predators	<input type="checkbox"/>
herbivores	<input type="checkbox"/>	carnivores	<input type="checkbox"/>

1 mark

(c) (i) Crabeater seals eat krill.
Fishermen catch large amounts of krill from the sea.

How would a decrease in the number of krill affect the number of crabeater seals?

.....
.....

1 mark

(ii) Look at the food web.
Leopard seals also eat krill.

A decrease in the number of krill will affect the crabeater seals sooner than it affects leopard seals.
Give the reason for this.

.....
.....

1 mark
maximum 6 marks