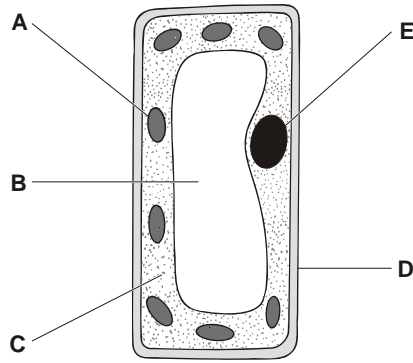


DO NOT WRITE ON THESE SHEETS

1. The diagram shows a plant cell.



(a) Give the name of part A.

.....

Give the function of part A.

.....
.....

2 marks

(b) Give the name of part E.

.....

Give the function of part E.

.....
.....

2 marks

(c) Give the letters of **two** parts that are present in plant cells but **not** in animal cells.

..... and

1 mark

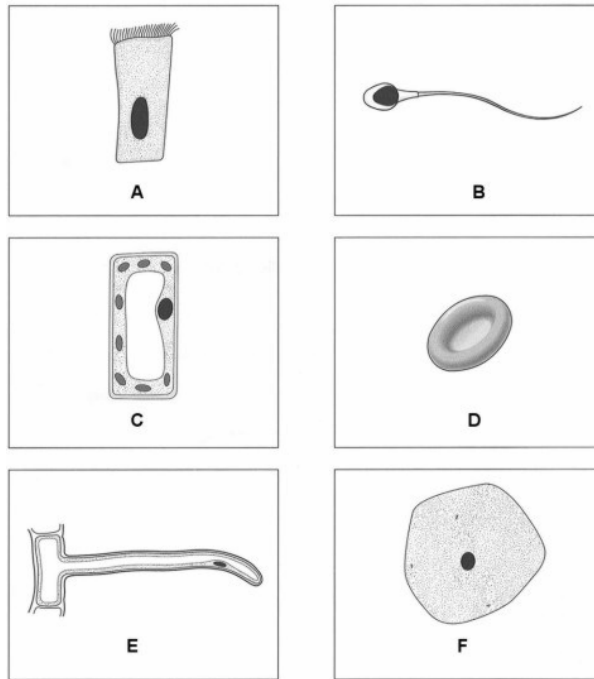
(d) How can you tell that the cell in the diagram is from a leaf and **not** from a root?

.....

1 mark
maximum 6 marks

DO NOT WRITE ON THESE SHEETS

2. The diagram below shows six cells.



(a) (i) Give the letters of the **two** plant cells in the diagrams.

..... and

1 mark

(ii) Which **one** of these plant cells contains chloroplasts?
Give the letter.

.....

1 mark

(iii) Give the function of chloroplasts.

.....
.....

1 mark

(b) (i) Give the letter of the ciliated cell.

.....

1 mark

(ii) In which part of the body are ciliated cells found?

.....

1 mark

(iii) What is the function of ciliated cells in this part of the body?

.....
.....

1 mark

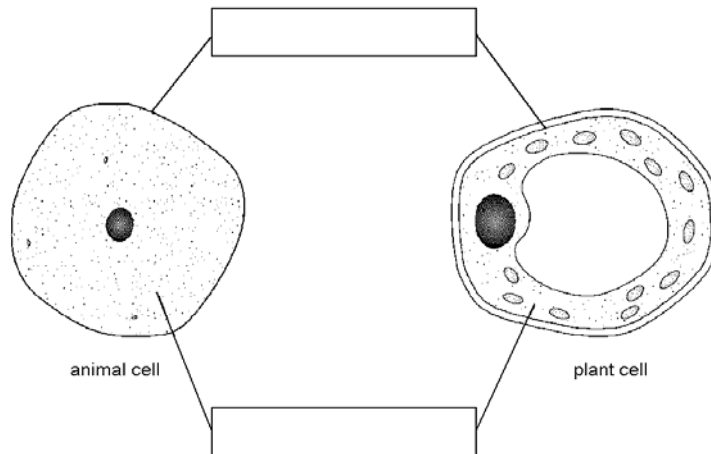
(c) Give the letter of the cell which transfers genetic information from father to offspring.

.....

1 mark
maximum 7 marks

DO NOT WRITE ON THESE SHEETS

3. (a) The diagrams below show an animal cell and a plant cell.



- (i) The lines from the boxes show the positions of two of the parts that are present in both cells. In the boxes, write the names of these **two** parts. 2 marks
- (ii) Give the names of **two** parts which are present in plant cells but **not** in animal cells. 2 marks
1.
 2.

(b) Organs can carry out their functions because of the special cells they have.

Draw a straight line from the name of each type of cell to the function of the cell and then to the process it carries out. One has been done for you.

cell	function	process
white blood cell	absorbs light	to prevent disease
leaf cell	transports oxygen	to digest food
cell in the intestine	traps micro-organisms	for respiration
red blood cell	produces enzymes	for photosynthesis



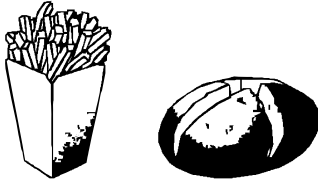
Note: A line is drawn from 'cell in the intestine' to 'traps micro-organisms' and then to 'for respiration'. Another line is drawn from 'red blood cell' to 'produces enzymes' and then to 'for photosynthesis'.

3 marks
Maximum 7 marks

DO NOT WRITE ON THESE SHEETS

4. The card shows the amounts of fat and fibre in some types of food and drink from a café.

Chez Jean Café

	fat in g	fibre in g	
type of burger			
single burger	17	0.8	
double burger	38	1.2	
cheeseburger	21	1.0	
type of drink			
strawberry milkshake	8	0	
medium cola	0	0	
medium orange juice	0	0	
type of potato			
regular fries	15	3	
baked potato	0	9	

(a) From the card above, choose a meal consisting of a burger, a drink and some potato, to give:

(i) the least fat;

1 mark

(ii) the most fibre.

1 mark

Write your answers in the table below.

Food and drink	meal with the least fat	meal with the most fibre
type of burger		
type of drink		the drinks do not contain fibre
type of potato		

DO NOT WRITE ON THESE SHEETS

- (b) Draw a line from each nutrient to the main reason why it is needed.
Draw only **four** lines.

nutrient		main reason why the nutrient is needed		
		●		to keep the intestine working properly
calcium	●	●		for healthy teeth and bones
fibre	●	●		for insulation
protein	●	●		to provide energy
sugar	●	●		for growth and repair

4 marks
Maximum 6 marks

5. The following are important parts of a balanced diet.

carbohydrates

proteins

fats

vitamins

water

A pupil has a sweet, juicy orange to eat.

- (a) Complete the following sentences using words from the list above.

- (i) An orange is a good source of

..... and

2 marks

- (ii) An orange is a poor source of

..... and

2 marks

- (b) Give the names of **two** parts of a balanced diet which are **not** shown in the list above.

1.

2.

2 marks

- (c) In order to obtain the nutrients, food must be chewed Give **two** reasons why it is important to chew food.

1.

.....

2.

.....

2 marks
Maximum 8 marks

DO NOT WRITE ON THESE SHEETS

6. 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?

.....

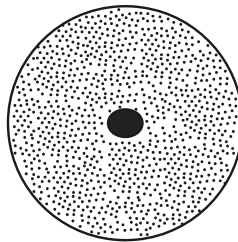
1 mark

(ii) Where is cell A produced?

.....

1 mark

(b)



B

(i) What is the name of cell B?

.....

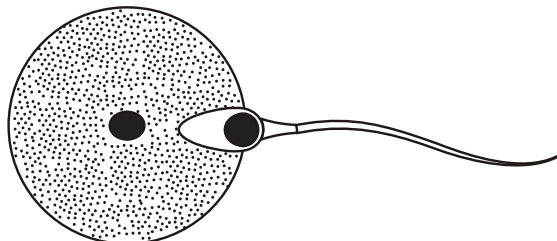
1 mark

(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

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(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 7 marks

7. (a) This question is about the menstrual cycle. Choose words from the list to complete the sentences.

4 marks

- a daily the uterus the middle an ovary a weekly**
the beginning a monthly the end the vagina

Menstruation is part of cycle.

The cycle begins when the lining of breaks away.

An ovum (egg) is released from at about
..... of each cycle.

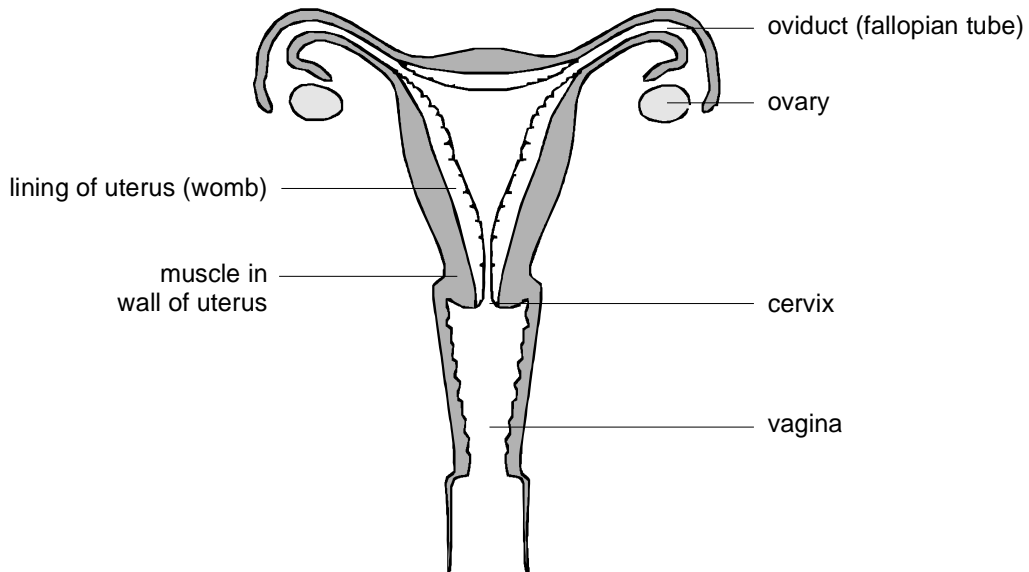
(b) During adolescence, boys' bodies change. Describe **two** of the changes.

.....
.....
.....
.....

2 marks
Maximum 6 marks

DO NOT WRITE ON THESE SHEETS

8. The diagram shows a section through the human female reproductive system.



(a) (i) How often are eggs normally released in the female reproductive system?

.....

1 mark

(ii) In which labelled part is an egg normally fertilised by a sperm?

.....

1 mark

(b) Fill the **two** gaps in the sentences below.

A fertilised egg divides into a tiny ball of cells called an embryo.

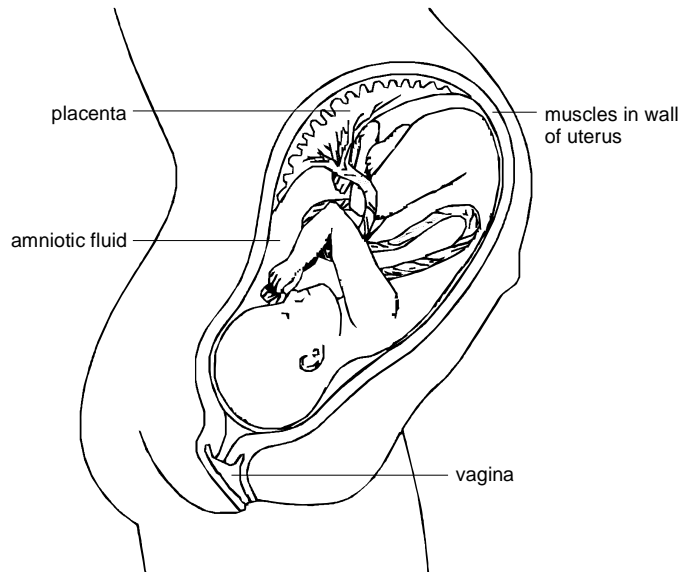
The embryo attaches to the lining of the uterus. Here the embryo grows to become an unborn baby, called a

It takes about months for a baby to develop inside its mother.

2 marks

DO NOT WRITE ON THESE SHEETS

(c) The diagram below shows a baby growing in its mother's uterus.



(i) What is the function of the amniotic fluid?

.....

1 mark

(ii) Through which part can harmful substances, such as nicotine, pass from the mother's blood to the baby's blood?

.....

1 mark

(iii) Give **one other harmful** substance which may be passed from the mother's blood to the baby's blood.

.....

1 mark

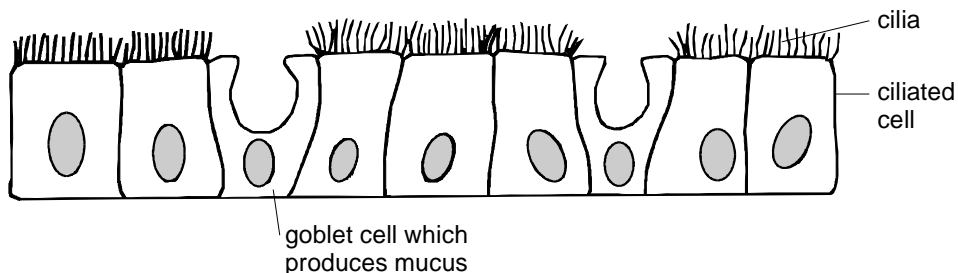
(d) When the baby is born it is pushed out of the mother's body. What happens in the wall of the uterus to push the baby out?

.....

1 mark

Maximum 8 marks

9. The diagram shows two types of cell in the lining of the windpipe.



(a) (i) These cells work together to keep the lungs free of bacteria and dust particles. What word describes a group of similar cells which work together?

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.....

1 mark

- (ii) Mucus is a sticky substance.
Describe how **mucus** and **cilia** keep the lungs free of bacteria and dust particles.

.....
.....
.....
.....

2 mark

- (b) When a person breathes in cigarette smoke, the goblet cells produce extra mucus and the cilia are damaged.
What will be the consequences of this?

.....
.....
.....
.....

2 marks

- (c) Give the names of **two** harmful substances in cigarette smoke.
In what way is each one harmful?

1. name of substance
harmful effect
2. name of substance
harmful effect
-

2 marks

Maximum 7 marks