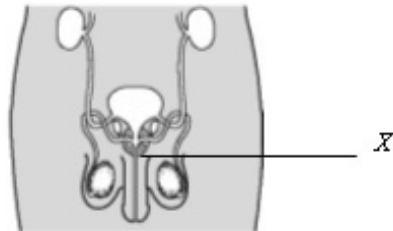


## Chapter 21    Reproduction

### Paper 1

Answer **all** questions. Each question is followed by four options, **A**, **B**, **C** and **D**. For each question, choose **one** answer only.

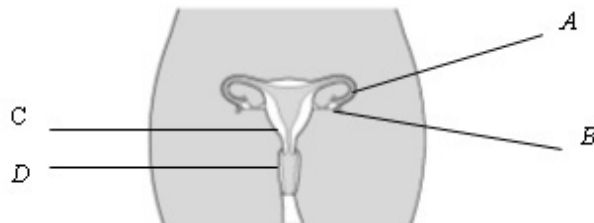
1.



The figure above shows the male reproductive system. What is the function of structure X?

- A**    It channels sperms to the testis.
- B**    It sends sperms to the female sexual organ.
- C**    It produces testosterone hormones.
- D**    It produces seminal fluid.

2.



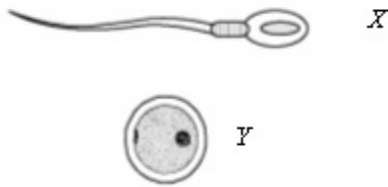
The figure above shows the female reproductive system. At which of the parts **A**, **B**, **C** or **D** produces the female gamete?

3.    The fertilisation of the ovum by the sperm takes place in the
- |                 |                         |
|-----------------|-------------------------|
| <b>A</b> uterus | <b>C</b> Fallopian tube |
| <b>B</b> cervix | <b>D</b> vagina         |

4. Which of the following is **not** true about the characteristics of the sperm and the ovum?

	<i>Sperm</i>	<i>Ovum</i>
A	Male reproductive cell.	Female reproductive cell.
B	Produced by the testis.	Produced by the ovary.
C	It is the biggest cell in the male body.	It is the smallest cell in the female body.
D	It can move.	It cannot move.

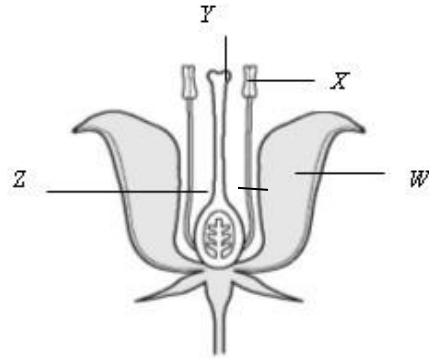
5.



The figure above shows human gametes. What are the special characteristics of the gametes which enable fertilisation to take place?

- A Gamete X swims quickly to reach gamete Y  
B Gamete Y swims quickly to reach gamete X  
C Gamete Y divides quickly so that it can be fertilised.  
D Gametes X and Y swim and meet in the Fallopian tube.
6. Which of the following are **advantages** of asexual reproduction?
- I Does not need the help of other organisms to produce offspring.  
II Can produce many offspring in a short period of time.  
III Produce offspring with characteristics different from those of the parents.
- A I and II only                      C I and II only  
B I and III only                    D I, II and III

7.



Which of the following is **true** about the functions of the parts of the flowers labelled W, X, Y Z in the figure above?

	<i>Part</i>	<i>Function</i>
<b>A</b>	W	Produces nectar
<b>B</b>	X	Produces ovule
<b>C</b>	Y	Has a sticky surface to help pollination
<b>D</b>	Z	Produces pollen grains

8. Which birth control method will make a woman sterile for the rest of her life?

- A** Ligation
- B** Use of diaphragm
- C** Use of spermicide
- D** Use of intrauterine device

9. Which of the following are the male parts of a flower?

- A** Anther, stigma, ovary
- B** Filament, anther, pollen
- C** Filament, style, ovule
- D** Pollen, pistil, stigma

10. Which of the following statements is **not** true about cross-pollination?

- A** Cross-pollination produces more healthy offspring.
- B** The pollen of one flower falls on the stigma of a flower of another plant.
- C** Cross-pollination produces new plant with the characteristics of both parent plants
- D** Cross-pollination can occur when the pollen of a flower falls on the stigma of another flower of the same plant.

11.

- |   |                                      |
|---|--------------------------------------|
| 1 | The plumule grows upwards            |
| 2 | Water is absorbed                    |
| 3 | The radicle grows out                |
| 4 | The cotyledon shrivels and falls off |

Which is the **correct** sequence of the stages of germination of a seed?

- A** 1, 2, 3, 4
- B** 2, 3, 1, 4
- C** 4, 3, 1, 2
- D** 3, 2, 4, 1

**12.** Which of the following pair is matched **correctly**?

	<i>Part of seed</i>	<i>Function</i>
<b>I</b>	Plumule	Becomes shoot
<b>II</b>	Cotyledon	Protects the seed
<b>III</b>	Radicle	Becomes root

- A** I and II only
- B** I and III only
- C** II and III only
- D** I, II and III

**13.** Which of the following plants reproduce through spores?



*P*



*Q*



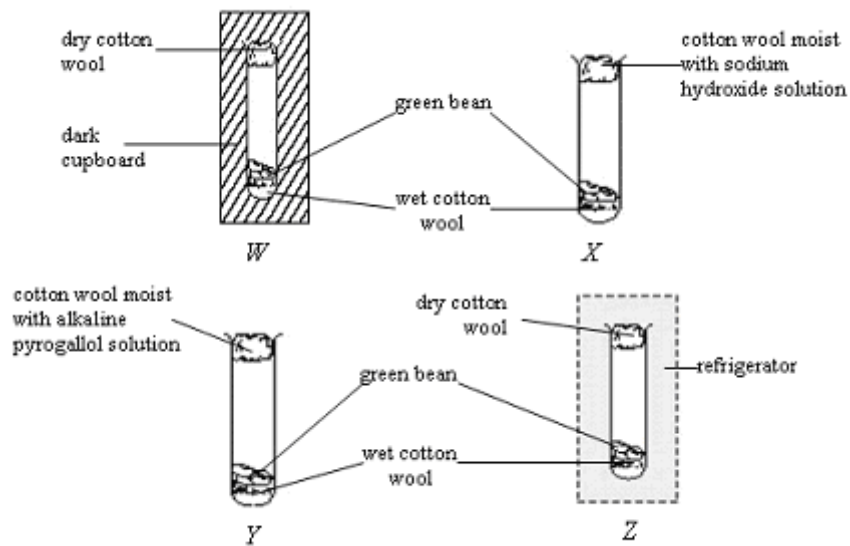
*R*



*S*

- A** *S* only
- B** *P* and *Q* only
- C** *R* and *S* only
- D** *Q*, *R* and *S*

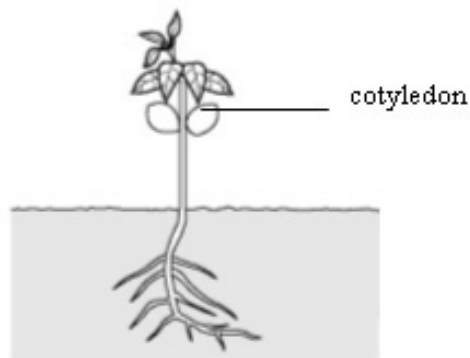
14.



The figure above shows four sets of apparatus under different conditions. In which of the test tubes, will the green beans germinate?

- A W and X only
- B X and Y only
- C W, X and Y only
- D W, X, Y and Z

15.



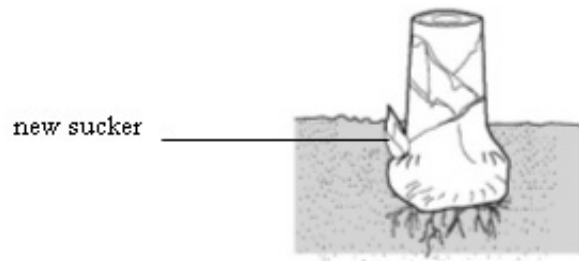
The figure above shows the germination of a green bean. Which of the following statements is **true**?

- A Growth continues to produce more cotyledons
- B The food stored in the cotyledon will be used up
- C The supply of nutrients from the cotyledon continues
- D The cotyledon will absorb plenty of water from the ground

16. Which of the following is contained in a cotyledon?

- A Protein
- B Mineral salt
- C Fat
- D Starch

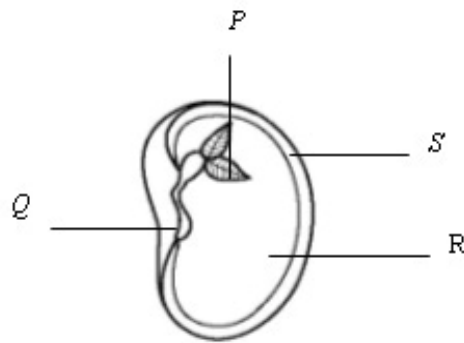
17.



The figure above shows a sucker growing from the stump of the parent plant. Which of the following plants reproduce in this manner?

- A Banana
- B *Bryophyllum*
- C Tapioca
- D Sugarcane

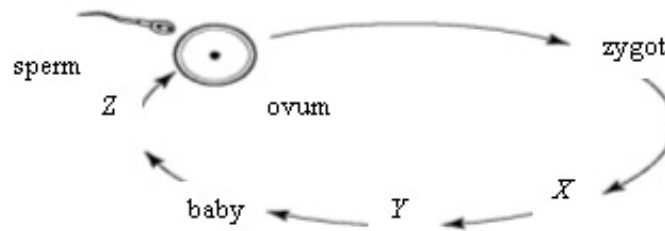
18.



The figure above shows a cross-section of a green bean. Which of the following represents the parts labelled *P*, *Q*, *R* and *S*?

- |   | <i>P</i> | <i>Q</i>  | <i>R</i>  | <i>S</i>  |
|---|----------|-----------|-----------|-----------|
| A | Radicle  | Plumule   | Testa     | Cotyledon |
| B | Plumule  | Cotyledon | Testa     | Radicle   |
| C | Plumule  | Radicle   | Cotyledon | Testa     |
| D | Radicle  | Plumule   | Cotyledon | Testa     |

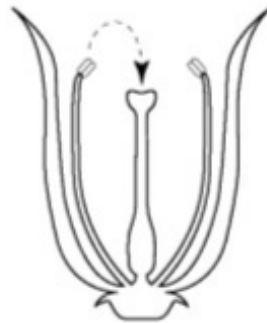
19.



The figure above shows the stages of human development beginning from the fusion of a sperm and an ovum. What are stages X, Y and Z?

	X	Y	Z
<b>A</b>	Embryo	Foetus	Adult
<b>B</b>	Adult	Foetus	Embryo
<b>C</b>	Foetus	Embryo	Adult
<b>D</b>	Embryo	Adult	Foetus

20.

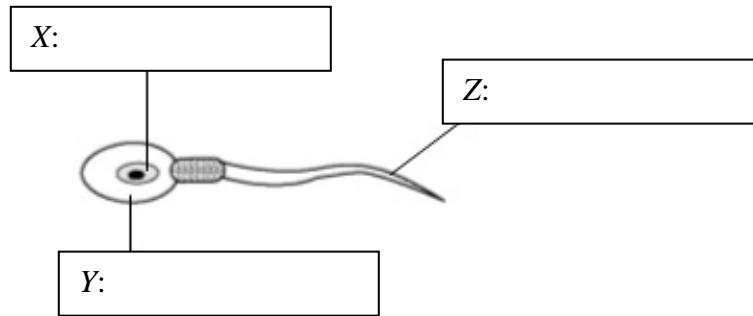


The figure above shows the process of self-pollination taking place in a flower. Which of the following stages takes place after this?

- A** The stamen and stigma wilt.
- B** The anther develops to become a seed.
- C** The sepal shrinks and drops off.
- D** The pollen tube grows from the pollen grain.

Paper 2

Answer the question.



The figure above shows the structure of a human male gamete.

(a) Name the male gamete.

---

(b) On the figure above, label parts X, Y and Z using the following words.

Tail	Nucleus	Cytoplasm
------	---------	-----------

(c) What is the function of structure Z?

---

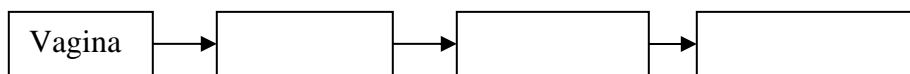
(d) State the function of the male gamete in reproduction.

---

(e) Where is the male gamete in the figure above heading to in female body?

---

(f) Complete the flow chart below to show the movement sequence of the male gamete beginning from vagina in female body.



**Answers:**



**Paper 1**

1	<b>D</b>	11	<b>B</b>
2	<b>B</b>	12	<b>B</b>
3	<b>C</b>	13	<b>C</b>
4	<b>C</b>	14	<b>A</b>
5	<b>A</b>	15	<b>B</b>
6	<b>A</b>	16	<b>D</b>
7	<b>C</b>	17	<b>A</b>
8	<b>A</b>	18	<b>C</b>
9	<b>B</b>	19	<b>A</b>
10	<b>D</b>	20	<b>D</b>

**Paper 2**

- (a) Sperm
- (b) X: Nucleus  
Y: Cytoplasm  
Z: Tail
- (c) It enables the sperm to swim fast
- (d) It fertilises the ovum to form a new individual
- (e) Fallopian tube
- (f) Cervix; Uterus; Fallopian tube