



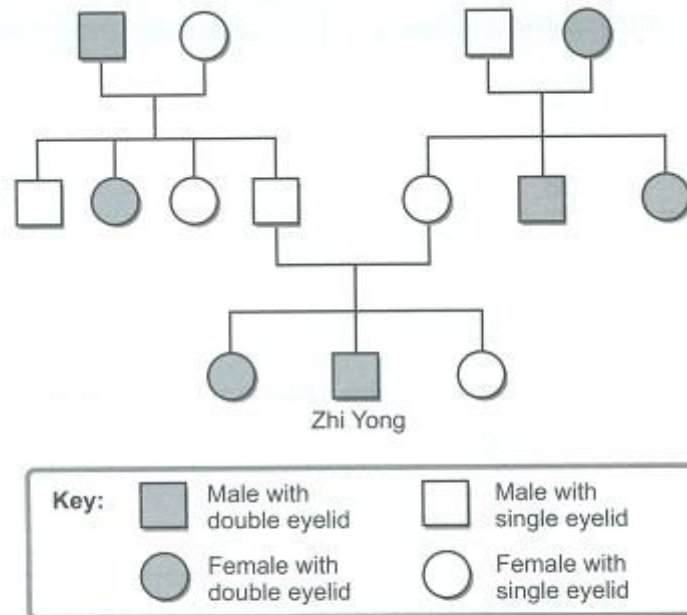
## TOPICAL TEST 3A:



### Section A (10 x 2 marks)

For each question from 1 to 10, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and write the answers in the brackets provided.

1. Study the family tree of Zhi Yong shown below.

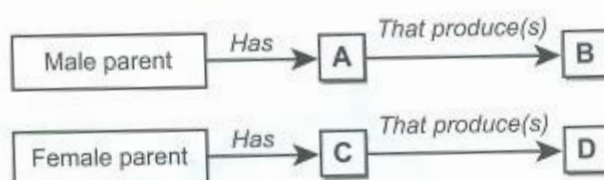


Based on the information in the family tree shown above, which of the following statements about the family tree is true?

- (1) Zhi Yong's parents have double eyelids.
- (2) Zhi Yong has two aunts with double eyelids.
- (3) All of Zhi Yong's siblings have double eyelids.
- (4) Both of Zhi Yong's grandfathers have single eyelids.

(      )

2. Study the diagram shown below.

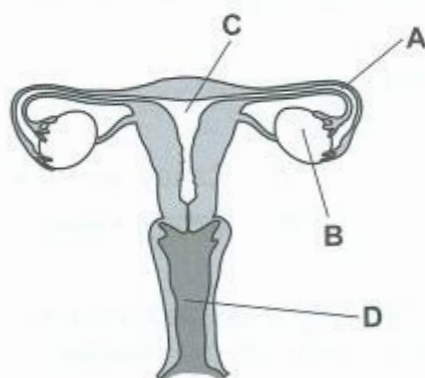


Which of the following correctly represents A, B, C and D?

	A	B	C	D
(1)	Anther	Ovaries	Pollen grains	Ovules
(2)	Testis	Womb	Sperms	Eggs
(3)	Penis	Vagina	Eggs	Ovaries
(4)	Testis	Sperms	Ovaries	Eggs

( )

3. The diagram below shows the female reproductive system in humans,



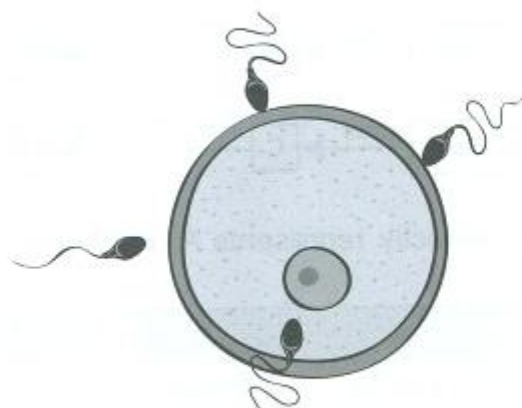
In which part, A, B, C or D does fertilisation usually takes place?

- (1) A  
(3) C

- (2) B  
(4) D

( )

4. The diagram below shows the process of fertilisation of a human egg.



Four pupils made the following statements about the fertilisation process shown above.

- Andy : Fertilisation takes place inside the female's body.  
 Benny : The fertilised egg develops into a foetus in the ovary.  
 Candy : Fertilisation occurs when the sperm fuses with the egg.  
 Danny : All the sperms around the egg will fertilise the egg.

Which pupil(s) made the correct statement?

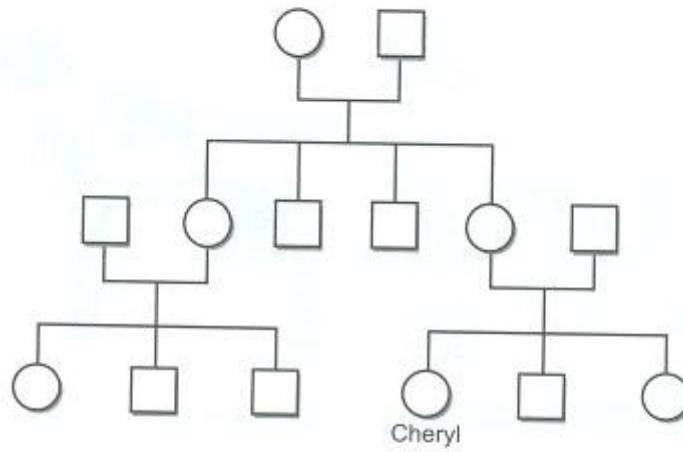
- (1) Andy only (2) Candy and Danny only  
 (3) Andy and Candy only (4) Benny, Candy and Danny ( )
5. Eye colour is a characteristic that can be passed down from parents to their children. The table below shows the eye colour of four children and their parents.

Eye colour			
Student		Mother	Father
Alex	Black	Black	Brown
Benita	Brown	Brown	Brown
Coco	Brown	Black	Brown
Dora	Black	Brown	Black

Based on the table, which of the following statements is true?

- (1) When a child has black coloured eyes, her father will most likely have black coloured eyes.  
 (2) When a child has black coloured eyes, her mother will most likely have black coloured eyes.  
 (3) When a child has brown coloured eyes, her mother will most likely have brown coloured eyes.  
 (4) When a child has brown coloured eyes, at least one of her parents will have brown coloured eyes. ( )

6. Study the family tree below carefully.



How many nephew(s) does Cheryl's mother have?

- (1) 1 (2) 2  
(3) 3 (4) 4 ( )

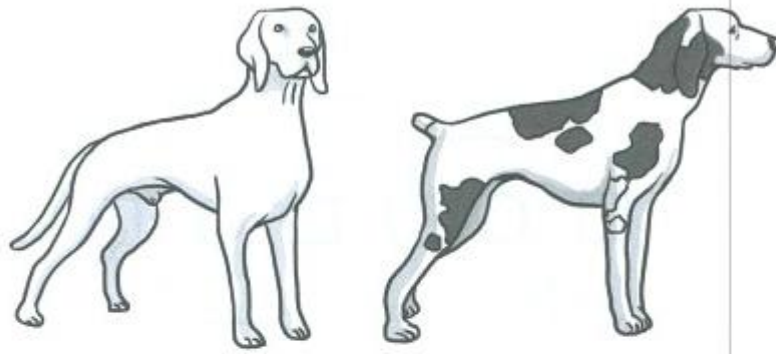
7. Which of the following characteristics can be passed on from parents to their offspring?

- A: Double eyelids  
B: Detached earlobes  
C: Length of hair  
D: Fingerprints

- (1) A and B only (2) A, B and D only  
(3) A, C and D only (4) B, C and D only ( )

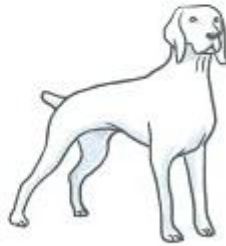


8. The diagrams below shows the parents of Juno.



Which of the following is least likely to be Juno?

(1)



(2)



(3)

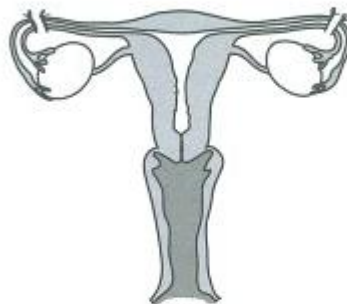


(4)



( )

9. Study the diagram of the reproductive organ shown below.

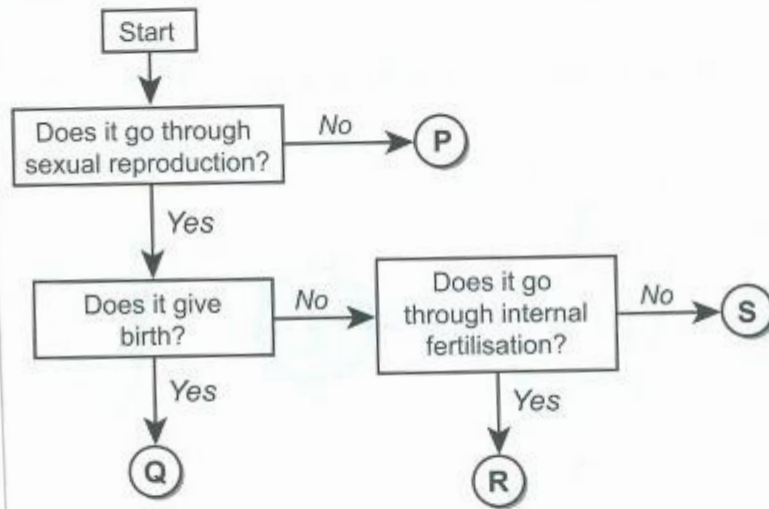


Mrs Chew had a medical procedure done such that the fallopian tubes were cut and tied to ensure that \_\_\_\_\_.

- (1) no eggs would be released
- (2) fertilisation would not take place
- (3) fertilisation would definitely take place
- (4) many eggs could be released at one time

( )

10. Study the flow chart below.



Which of the following best represents P, Q, R and S?

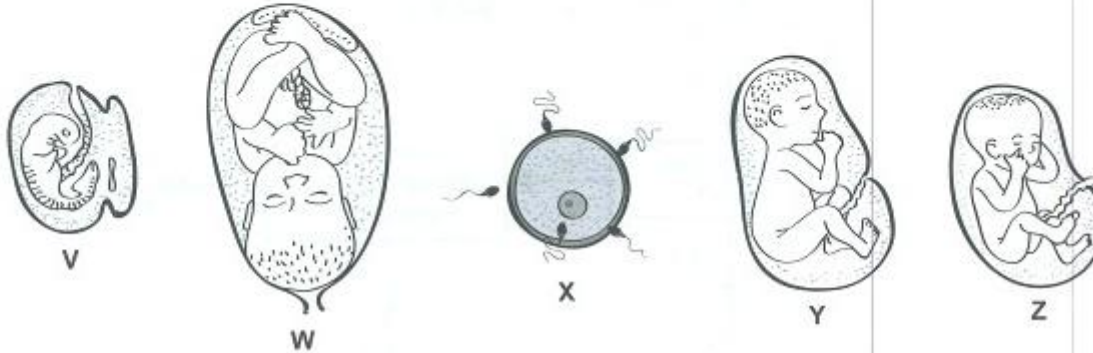
	P	Q	R	S
(1)	Chicken	Dolphin	Duck	Rabbit
(2)	Amoeba	Whale	Molly	Penguin
(3)	Yeast	Guppy	Chicken	Frog
(4)	Toad	Platypus	Cow	Fish

( )

### Section B (10 marks)

Read each question carefully and write the answers in the spaces provided.

11. The diagram below shows the different stages of development of a human baby.



- (a) Arrange the diagrams, V, W, X, Y and Z from the first stage to the last stage of development. (1m)

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The diagram below shows a foetus developing in the mother's womb.



- (b) Name the part labelled X. State one function of Part X. (2m)

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12. Kelvin's family tree consists of three generations.

1<sup>st</sup> generation : Paternal grandfather  
Paternal grandmother  
Maternal grandmother  
Maternal grandfather

2<sup>nd</sup> generation : Father  
Mother  
1 maternal aunt  
1 paternal aunt

3<sup>rd</sup> generation : Kelvin  
1 brother  
2 sisters

Based on the above information, **draw** Kelvin's family tree in the space provided.  
Indicate "Kelvin" in the family tree. (3m)

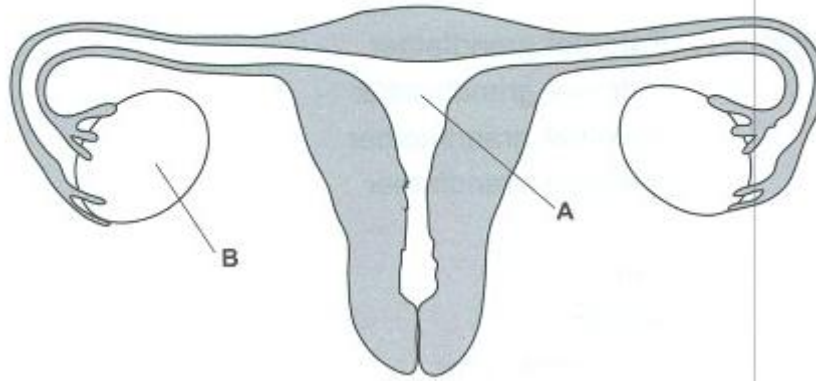
**Legend:**

○ Female

□ Male



13. The diagram below shows a female reproductive system.



- (a) Name the parts labelled A and B. (1m)

A: \_\_\_\_\_

B: \_\_\_\_\_

- (b) State the functions of the parts named in (a). (1m)

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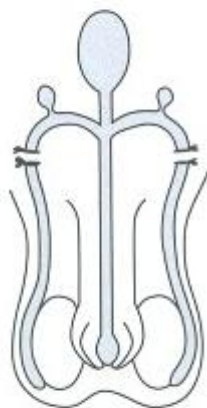
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14. The diagram below shows the human male reproductive system.

For the purpose of family planning, a medical procedure was carried out on the male such that the tubes were cut and tied.



Explain clearly how the above medical procedure prevents pregnancy from occurring. (2m)

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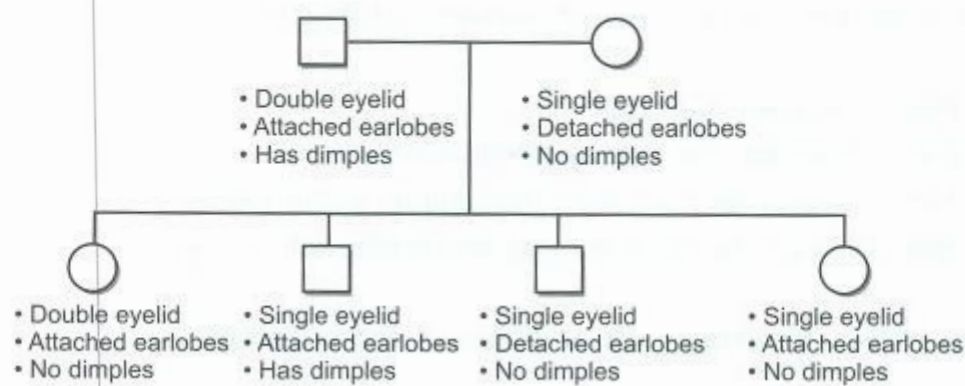
## TOPICAL TEST 3B:



### Section A (10 x 2 marks)

For each question from 1 to 10, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and write the answers in the brackets provided.

1. Study Mr Ong's family tree shown below.



How many of Mr and Mrs Ong's children inherited at least 2 characteristics from Mr Ong?

- (1) 1 (2) 2  
(3) 3 (4) 4 ( )

2. The diagrams below show the reproductive systems of a plant and of a human.

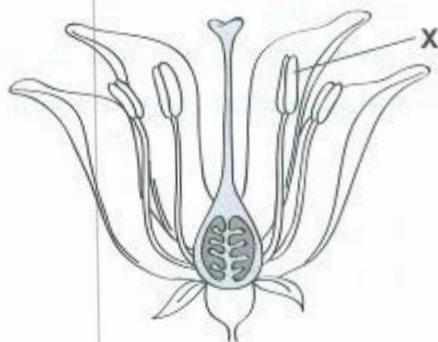


Diagram 1

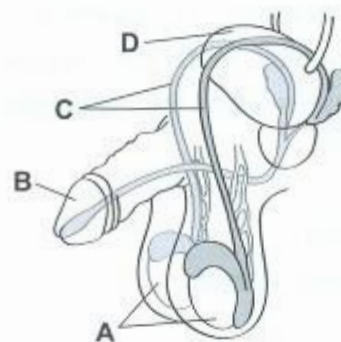
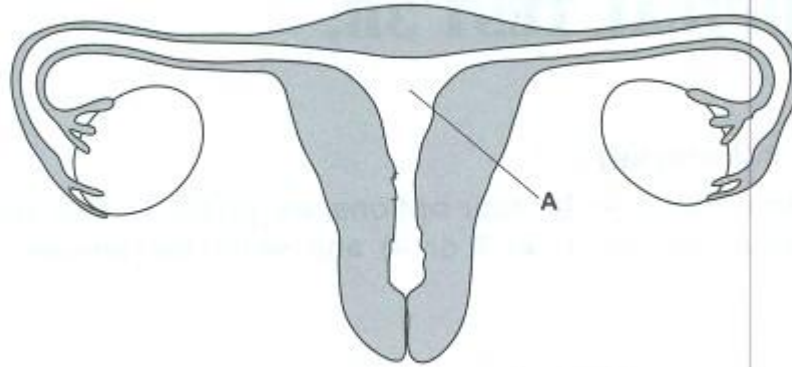


Diagram 2

Which part, A, B, C or D, in Diagram 2, has the same function as Part X in Diagram 1?

- (1) A (2) B  
(3) C (4) D ( )

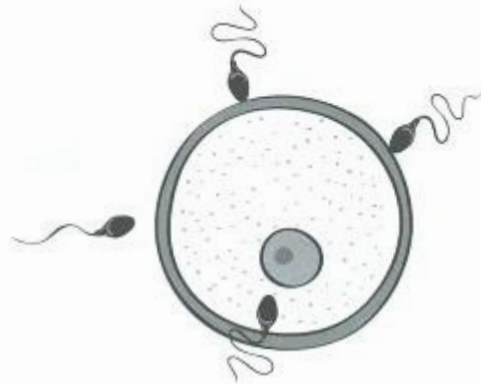
3. The diagram below shows a cross section of a human female reproductive system.



What is the function of Part A in human reproduction?

- (1) Part A fertilises the egg.  
 (2) Part A releases the egg for fertilisation.  
 (3) Part A transports food from the mother to the foetus.  
 (4) Part A allows the fertilised egg to develop into a foetus. ( )
4. Which of the following is **not** an inherited characteristic?
- (1) Colour of skin  
 (2) Length of hair  
 (3) Type of earlobe  
 (4) Colour of the eyes ( )
5. Which of the following statements about the umbilical cord is/are correct?
- A: Fertilisation takes place in the umbilical cord.  
 B: It connects the developing baby to the mother.  
 C: It carries food and oxygen from the mother to the developing baby.  
 D: Wastes from the developing baby are transported away through the umbilical cord.
- (1) A only (2) B only  
 (3) A and C only (4) B, C and D only ( )

6. The diagram below shows two types of reproductive cells.

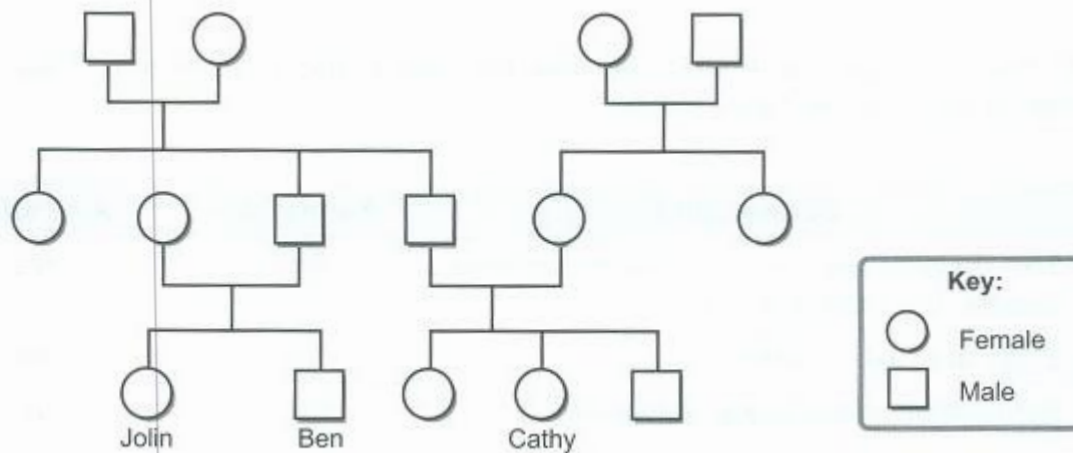


Which of the following statements about the reproductive cells is correct?

- (1) The fertilised egg will develop into a seedling.
- (2) The egg and sperms are produced by the female.
- (3) The process of cell division will take place after fertilisation.
- (4) The egg can be fertilised by two sperms and develop into a foetus.

( )

7. Study the family tree shown below.



Based on the information in the family tree shown above, which of the following statement(s) is/are correct?

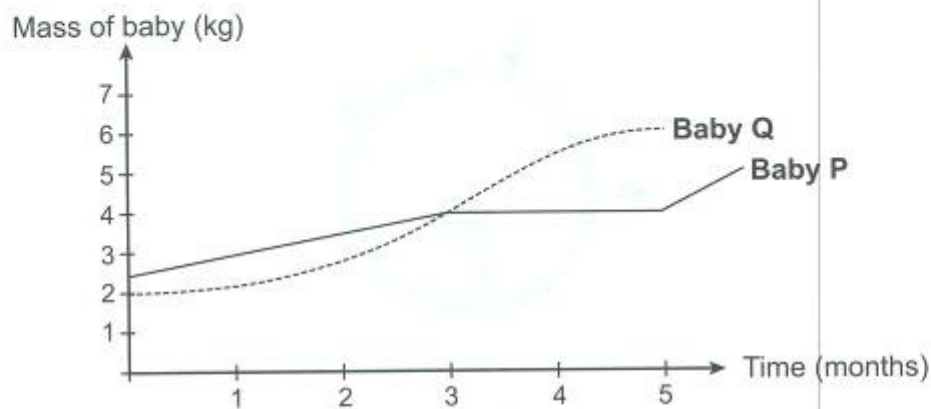
- A: Jolin has a brother.
- B: Jolin and Cathy are of the same age.
- C: Cathy's father has 2 sisters.
- D: Ben and Cathy are siblings.

- (1) A only
- (2) A and C only
- (3) B and D only
- (4) A, B, C and D

( )



8. The graph below shows the mass of 2 babies in the first few months after their birth.



Which of the following statements are true about the graph shown above?

- A: Baby P was born lighter than Baby Q.
- B: Both Baby P and Baby Q weighed exactly the same in the 3rd month.
- C: Baby P weighed more than Baby Q in the 4th month.
- D: Baby P's mass remained constant between the 3rd and 5th month.

- (1) A and B only

(2) A and D only
- (3) B and C only

(4) B and D only
- (       )

9. A group of pupils did a study on how Animals X and Y reproduce. They recorded their findings in the table below.

Observation	Animal X	Animal Y
The development of the eyes is completed outside the mother's body.	Yes	Yes
Eggs are laid in water.	Yes	No
Fertilisation takes place externally.	Yes	No

Which of the following best represents Animals X and Y?

(1)

Animal X

Animal Y

(2)

Salmon fish

Duck

(3)

Praying mantis

Hen

(4)

Snail

Toad

(5)

Frog

Lizard

(       )

10. Mr and Mrs Seetoh have the following characteristics.

	Hair Colour	Hair Length	Ears	Eyes
Mr Seetoh	Brown	Short	Attached	Black
Mrs Seetoh	Black	Long	Detached	Brown

	Hair Colour	Hair Length	Ears	Eyes
Anna	Black	Short	Detached	Black
Belinda	Brown	Long	Attached	Brown
Cassy	Brown	Short	Attached	Blue
Dorothy	Black	Short	Attached	Black

Which of their children is probably adopted?

- (1) Anna  
(3) Cassy

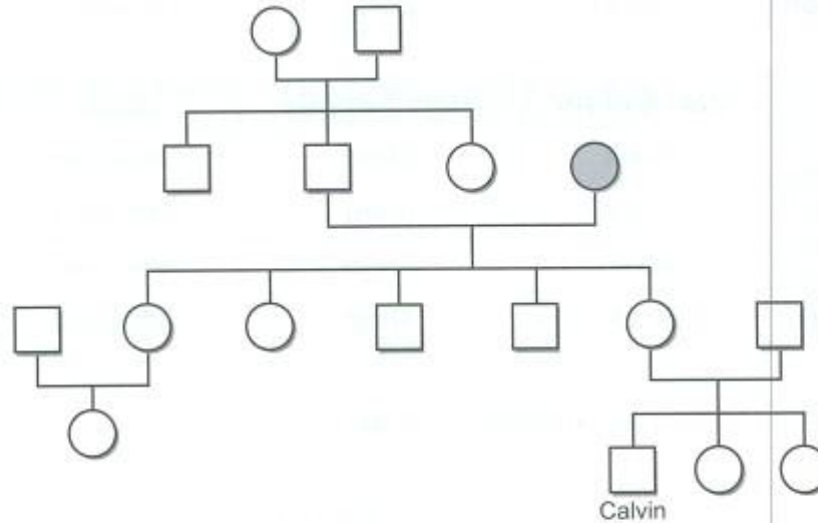
- (2) Belinda  
(4) Dorothy

( )

### Section B (10 marks)

Read each question carefully and write the answers in the spaces provided.

11. The diagram below shows the family tree of Calvin's maternal family.



- (a) How many aunts does Calvin have altogether? (1m)

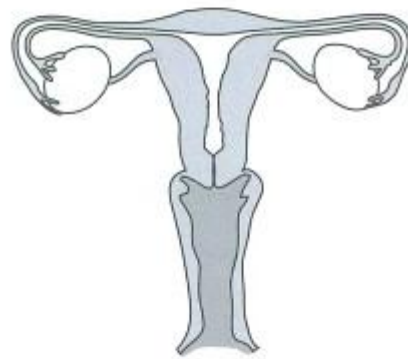
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- (b) **Shade** the symbol that represents Calvin's grandmother. (1m)

12. The diagram below shows the human female reproductive system.



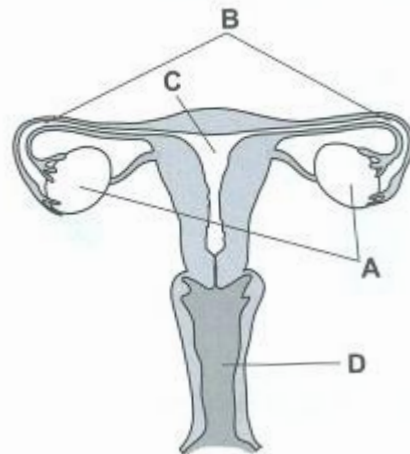
- (a) On the diagram, **label** and **name** the parts where the reproductive cells are produced. (1m)
- (b) Explain why a woman is unable to get pregnant without the parts labelled in (a). (1m)

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13. The diagram below shows the human female reproductive system.



- (a) Name the parts labelled A, B, C and D. (2m)

A: \_\_\_\_\_

B: \_\_\_\_\_

C: \_\_\_\_\_

D: \_\_\_\_\_

- (b) In which part, A, B, C or D does fertilisation usually take place? (1m)

\_\_\_\_\_

\_\_\_\_\_



14. Study the diagrams below carefully. Part A and Part B are produced by the male reproductive parts of two different organisms.



- (a) Name the parts labelled A and B. (1m)

A: \_\_\_\_\_

B: \_\_\_\_\_

- (b) Name the parts of the organisms that produce A and B respectively. (1m)

Part that produces A	
Part that produces B	

- (c) What would happen if the male does not have the part that produces Part B? (1m)

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