



REPRODUCTION

Checklist

Make sure you ...

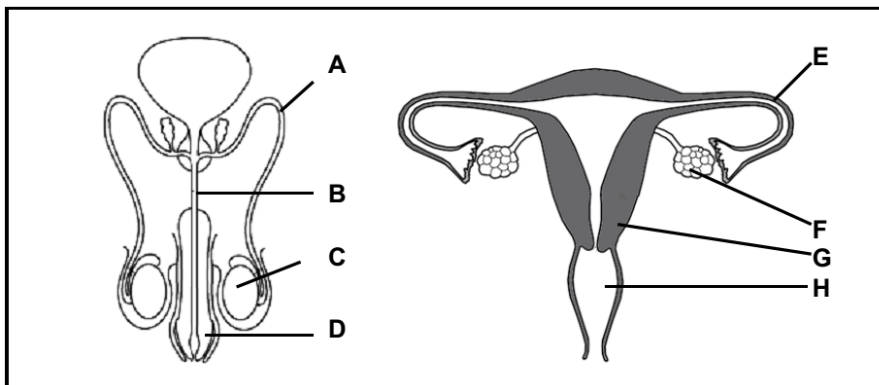
- Can describe different reproductive strategies of vertebrates
- Are able to identify the structure and function of the male and female reproductive organs in humans
- Can describe the process involved in human reproduction

Exam Questions

Question 1

(Adapted from DBE Feb 2014 Paper2, Question 1.4)

The diagrams below show the human male and female reproductive systems.



Write the LETTER (A–H) and NAME of the part:

- | | | |
|-----|---|-----|
| 1.1 | Which transports urine to the outside of the body | (2) |
| 1.2 | Where fertilisation occurs | (2) |
| 1.3 | Where sperms are produced | (2) |
| 1.4 | Where ova are produced | (2) |

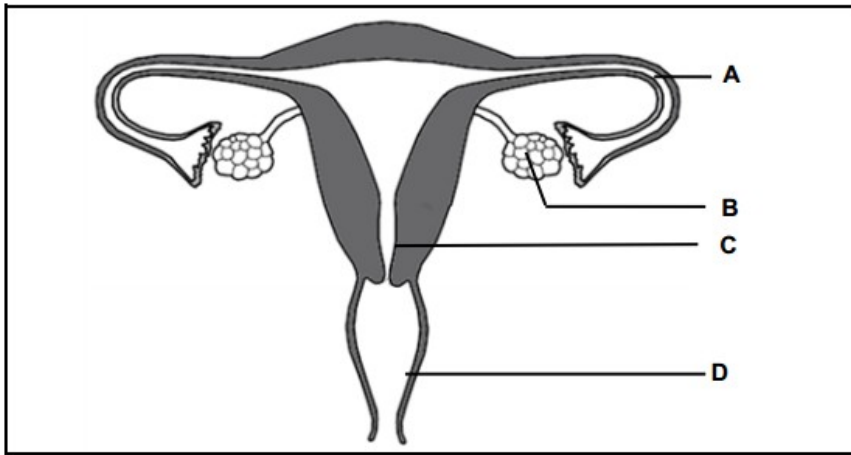




Question 2

(Adapted from DBE Feb 2013 Paper2, Question 1.4)

The diagram below shows the structure of the female reproductive system.



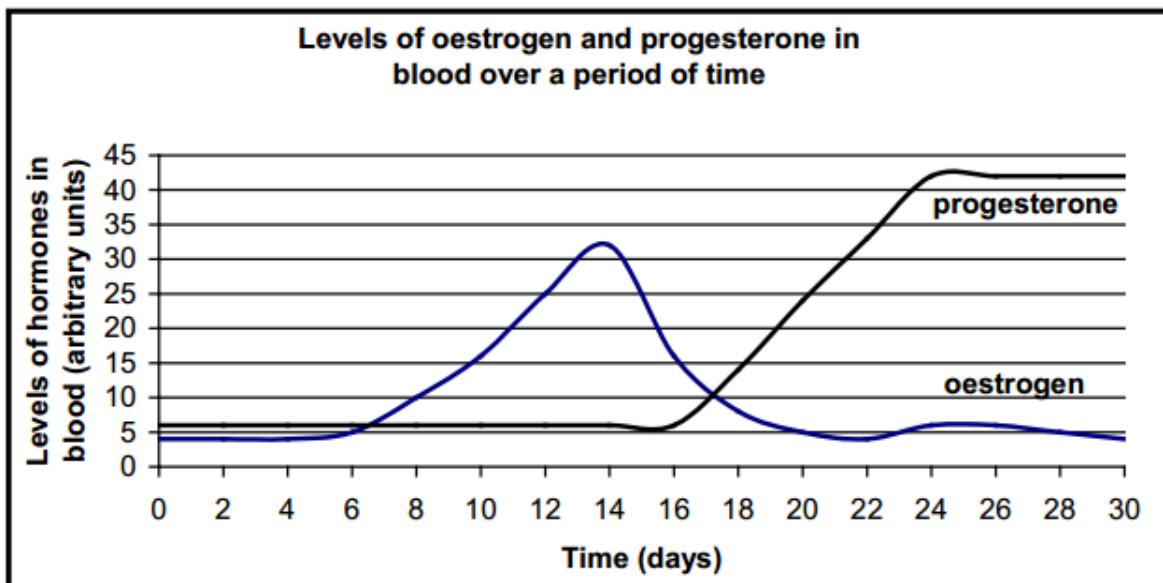
Give the LETTER and NAME of:

- 2.1 The part that breaks down when the levels of progesterone and oestrogen drop (2)
- 2.2 The part that plays a role during copulation (2)
- 2.3 The part where the zygote will be formed (2)
- 2.4 The part where the Graafian follicles develop (2)

Question 3

(Adapted from DBE Feb 2013 Paper1v2, Question 4.1)

The graph below shows the levels of the hormones oestrogen and progesterone in a pregnant woman's blood.



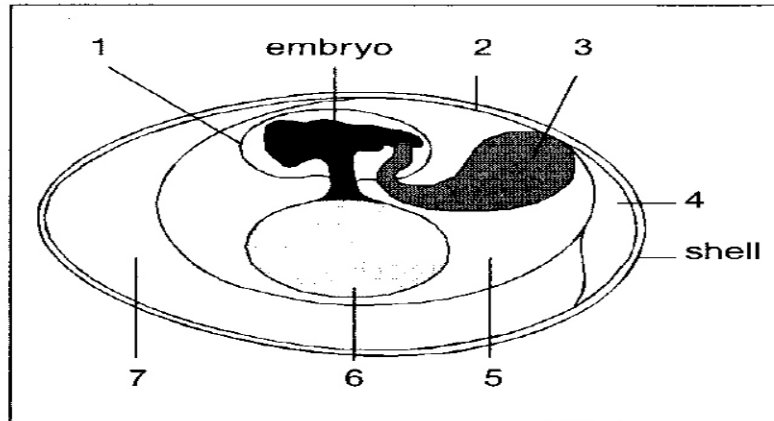
- 3.1 When are the levels of oestrogen and progesterone the same? (2)
- 3.2 How much oestrogen is in the blood on day 14? (2)
- 3.3 What evidence from the graph shows that an ovum was fertilised (2)





Question 4

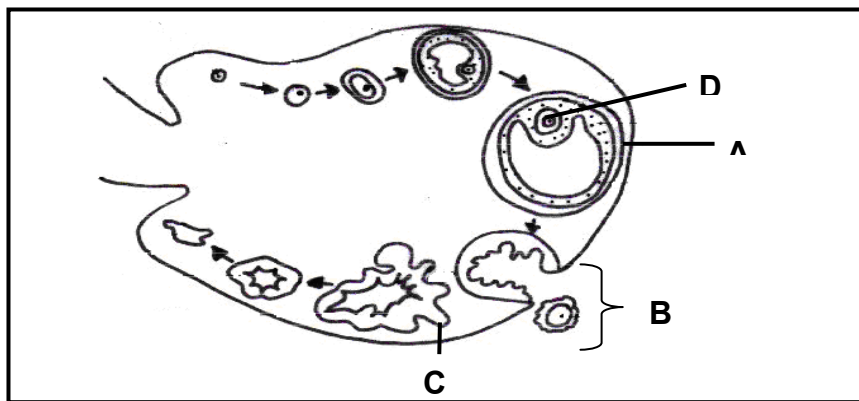
Study the diagram and answer the questions that follow:



- 4.1 Identify the membrane numbered 1, 2 and 4
- 4.2 Provide the functions of the fluid found within part 1.
- 4.3 Provide the number that represents the allantois in this diagram
- 4.4 What is the function of the allantois?
- 4.5 Explain the difference between viviparous and oviparous embryo development.
- 4.6 Briefly explain the meaning of the terms:
 - a) precocial young
 - b) altricial young

Question 5

Study the diagram below showing the sequence of events of the development of an ovum in a 28-day cycle



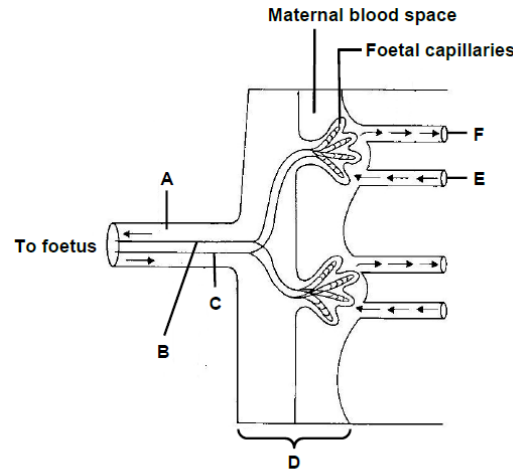
- 5.1 Identify the following:
 - (a) Follicle labelled A (1)
 - (b) Structure labelled C (1)
 - (c) Process shown at B (1)
 - (d) Hormone responsible for the formation of part A (1)
 - (e) Hormone responsible for the formation of part C (1)
- 5.2 What type of cell division resulted in the formation of part D? (1)
- 5.3 State whether fertilisation took place during this 28 day cycle. (1)
- 5.4 Explain your answer to QUESTION 1.3 (3)
- 5.5 Explain HOW and WHY the production of FSH is inhibited when fertilisation takes place. (4)





Question 6

The diagram below shows the circulation of blood in the wall of the uterus of a pregnant woman. The arrows indicate the direction of flow of blood.



Circulation of blood in the wall of the uterus

- 6.1 Label structures A and D.
- 6.2 Which blood vessel, B, C, E or F, carries the following:
 - a.) Food to the foetus
 - b.) Blood from the mother
- 6.3 The foetal capillaries are located inside numerous finger-like villi. Explain why this is useful.
- 6.4 Name and describe the role of the TWO glands and their hormones in preparing part D for pregnancy.

Question 7

Describe the menstrual cycle and how it is influenced by different hormones.

Test Yourself

Select the most correct answer from the options given. Write down only the correct letter

Question 1

Which ONE of the following correctly represents the correct sequence of events that take place in a female's reproductive cycle should fertilisation occur?

- (i) Fertilisation
 - (ii) Ovulation
 - (iii) Implantation
 - (iv) Gestation
- A. (i), (ii), (iii), (iv)
 - B. (i), (iii), (ii), (iv)
 - C. (ii), (i), (iii) and (iv)
 - D. (ii), (i), (iv), (iii)





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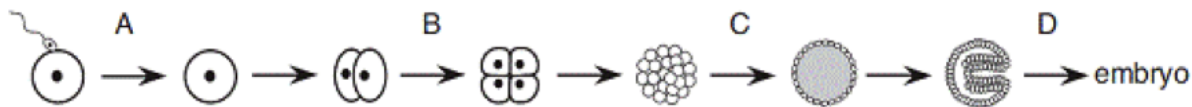
Question 2

In humans, a sperm cell and an egg cell normally fuse in the upper portion of the

- A. Vagina
- B. Cervix
- C. Ovary
- D. Oviduct

Question 3

_____ is responsible for creating the increase in cells in the pictures between B and C.



- A. Meiosis
- B. Fertilization
- C. Mitosis
- D. Gastrulation

Question 4

The human menstrual cycle is controlled by hormones produced and secreted by the:

- A. Pituitary gland and ovaries
- B. Pituitary gland and uterus
- C. Ovaries, only
- D. Uterus, only

Question 5

Which ONE of the following represents the correct order of the parts through which spermatozoa pass?

- A. Testis → vas deferens → epididymis → ureter
- B. Vas deferens → seminal vesicles → ureter → urethra
- C. Testis → epididymis → vas deferens → urethra
- D. Vas deferens → prostate gland → urethra → ureter

Additional Questions

Question 1

Draw diagrams to illustrate the differences between a human sperm and ovum.

Question 2

State the term used for the time of life when a person becomes sexually mature. Also describe features in males and females that are indicative of them reaching sexual maturity.

