

11.4 Sexual Reproduction

Question Paper

Course	DP IB Biology
Section	11. Animal Physiology (HL Only)
Topic	11.4 Sexual Reproduction
Difficulty	Easy

Time allowed: 10
Score: /5
Percentage: /100

Question 1

Which statement relating to gametogenesis is correct?

- A. Sperm production occurs in the interstitial cells.
- B. Gametogenesis in both males and females involves the process of mitosis.
- C. The entire process of oogenesis occurs before birth.
- D. Immature sperm cells with flagella are known as Sertoli cells.

[1 mark]

Question 2

Which statement relating to internal and external fertilisation is **not** correct?

- A. External fertilisation reduces the risk of predation.
- B. Aquatic animals often carry out external fertilisation
- C. Internal fertilisation takes place in the female reproductive tract.
- D. Internal fertilisation ensures that the male and female gametes are close to each other.

[1 mark]

Question 3

The following statements describe events that occur after fertilisation.

- I.
Finger-like projections grow into the uterus lining.
- II.
The fertilised egg cell divides by mitosis.
- III.
The zona pellucida breaks down.
- IV.
The embryo develops into a hollow ball of cells known as a blastocyst.

Which row in the table shows the correct sequence of events?

	First event	→	→	Last event
A.	III	II	I	IV
B.	II	IV	III	I
C.	II	III	IV	I
D.	III	IV	I	II

[1 mark]

Question 4

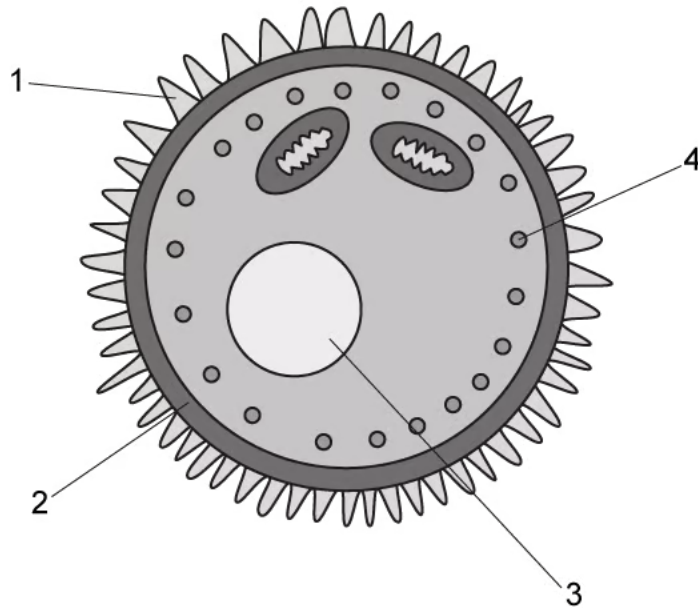
Which of the following statements relating to the placenta are correct?

- I.
The surface area of the placenta increases as the foetus grows.
 - II.
Maternal and fetal blood mixes in the intervillous spaces.
 - III.
The placental barrier is selectively permeable.
- A. I and II only.
 - B. I and III only.
 - C. II and III only.
 - D. III only.

[1 mark]

Question 5

The diagram below shows an ovum.



Which row correctly identifies structures 1–4 in the diagram? Note that the term mitochondrion is the singular for mitochondria.

	1	2	3	4
A.	Follicle cells	Cell wall	Diploid nucleus	Mitochondrion
B.	Follicle cells	Zona pellucida	Haploid nucleus	Mitochondrion
C.	Zona pellucida	Follicle cells	Haploid nucleus	Cortical granule
D.	Follicle cells	Zona pellucida	Haploid nucleus	Cortical granule

[1 mark]