

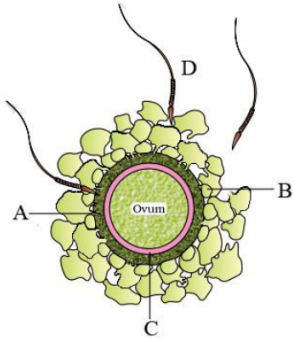
BIOLOGY CLASS 12 BATCH

Human Reproduction

DPP-08

1. The deposition of semen in vagina is called
 - (1) Ejaculation
 - (2) Insemination
 - (3) Erection
 - (4) Capacitation
2. Cells formed after meiosis II gets completed is/are
 - (1) Ovum
 - (2) Second polar body
 - (3) Ootid
 - (4) All of the above
3. State true (T) or false (F)
 - i. The ovum released by the ovary is transported to the ampullary region where fertilisation takes place
 - ii. Fertilisation can only occur if the ovum and sperms are transported simultaneously to the infundibulum region
 - iii. All copulations lead to fertilisation and pregnancy
 - iv. The process of fusion of a sperm with an ovum is called fertilisation
 - (1) i – T, ii – T, iii- F, iv – F
 - (2) i – F, ii – T, iii- F, iv – T
 - (3) i – T, ii – T, iii- T, iv – F
 - (4) i – T, ii – F, iii- F, iv – T
4. Capacitation occurs in
 - (1) Female reproductive tract
 - (2) Male reproductive tract
 - (3) Both (1) & (2)
 - (4) Ovum
5. Which of the following does not occur during capacitation?
 - (1) Ca^{2+} entry in sperms
 - (2) Removal of excess cholesterol from sperm membrane
 - (3) Rapid whiplash movements of sperms
 - (4) Release of acrosomal enzymes
6. Meiosis II is completed in
 - (1) Oviduct
 - (2) Uterus
 - (3) Ovary
 - (4) Graafian follicle
7. Find the correct statement
 - (1) Acrosomal enzymes help to digest egg membranes
 - (2) Many sperms can enter the cytoplasm of the female gamete
 - (3) Ootid formation takes place before entry of sperm
 - (4) Both (1) & (2)
8. Find out the correct statement with respect to fertilisation
 - (1) Sperm comes in contact with the zona pellucida layer of the ovum and induces changes in the membrane that block the entry of additional sperms
 - (2) The secretions of the nucleus help the sperm enter into the cytoplasm of the ovum
 - (3) The second meiotic division is equal
 - (4) The haploid nucleus of the sperm and that of the ovum fuse together to form a haploid zygote
9. During fertilisation, cortical reaction occurs. It is also called
 - (1) Fast block to polyspermy
 - (2) Slow block to polyspermy
 - (3) Depolarization
 - (4) Acrosomal reaction
10. Identify the odd one out with respect to female gamete
 - (1) Zona pellucida
 - (2) Sperm lysins
 - (3) Corona radiata
 - (4) Released from graafian follicle

11. Identify **A**, **B**, **C**, **D** correctly



- (1) **A** – Zona pellucida
B – Sperm
C – Perivitelline space
D – Corona radiata
- (2) **A** – Zona pellucida
B – Corona radiata
C – Perivitelline space
D – Sperm
- (3) **A** – Zona pellucida
B – Corona radiata
C – Sperm
D – Perivitelline space
- (4) **A** – Corona radiata
B – Zona pellucida
C – Perivitelline space
D – Sperm

12. The sex of the baby is determined by

- (1) Father
- (2) Mother
- (3) Either of the parent
- (4) Both the parents

13. Chromosome set in a sperm can be

- (1) $23 + X$
- (2) $23 + Y$
- (3) $22 + XY$
- (4) $22 + X$

ANSWER KEY

1. (2)
2. (4)
3. (4)
4. (1)
5. (4)
6. (1)

7. (1)
8. (1)
9. (2)
10. (2)
11. (2)
12. (1)
13. (4)