

Human Reproduction — CBSE Pattern Test 2

Class 12 Biology · 90 minutes · 40 marks · Sections A–D with answer key · Narayan Gurukul Academy

Test 2 — CBSE Pattern (90 minutes, 40 marks)

Class 12 Biology · Human Reproduction · Narayan Gurukul Academy (ClassApna)

General Instructions: (1) This paper has four sections — Section A (1×10), Section B (2×4), Section C (3×4) and Section D (5×2) — total 40 marks. Time allowed: 90 minutes.
(2) All questions are compulsory. No overall choice is given; internal choice, where allowed, is clearly marked.
(3) For MCQ questions choose the single correct option; for VSA answers write a single line.
(4) Take $g = 10 \text{ m/s}^2$. All symbols carry their usual meaning. Use of a calculator is not permitted.

Section A — MCQ & VSA ($10 \times 1 = 10$ marks)

- Oogenesis produces
 - one ovum and three polar bodies
 - four ova
 - two ova
 - one ovum only
- Ovulation is triggered by
 - LH surge
 - FSH
 - progesterone
 - oestrogen
- The fertilised egg is called the
 - zygote
 - blastula
 - morula
 - gastrula
- The placenta is formed from
 - embryonic and maternal tissue
 - only embryo
 - only mother
 - the ovary
- Lactation is controlled by
 - prolactin
 - oxytocin
 - FSH
 - LH
- The sperm matures in the
 - epididymis
 - vas deferens
 - seminal vesicle
 - prostate
- The fallopian tube connects the ovary to the
 - uterus

- (B) vagina
 - (C) cervix
 - (D) bladder
8. The female gametes are produced in the
- (A) ovaries
 - (B) uterus
 - (C) vagina
 - (D) cervix
9. What is parturition?
10. What is implantation?

Section B — Short Answer I ($4 \times 2 = 8$ marks)

11. What is the function of the acrosome?
12. How many nuclei are in a mature embryo?
13. Name two male accessory glands.
14. What is colostrum?

Section C — Short Answer II ($4 \times 3 = 12$ marks)

15. Differentiate between spermatogenesis and oogenesis.
16. Describe the process of fertilisation in humans.
17. What is the role of the placenta?
18. Explain the structure of a sperm.

Section D — Long Answers ($2 \times 5 = 10$ marks)

19. (a) Describe the female reproductive system. (b) Explain oogenesis.
20. (a) Describe early embryonic development up to implantation. (b) Explain parturition and lactation.

Answer Key (Marking Scheme)

- Q1 — (A) one ovum and three polar bodies. Q2 — (A) LH surge. Q3 — (A) zygote. Q4 — (A) embryonic and maternal tissue. Q5 — (A) prolactin. Q6 — (A) epididymis. Q7 — (A) uterus. Q8 — (A) ovaries.
- Q9 — Parturition is childbirth.
- Q10 — Implantation is the attachment of the blastocyst to the endometrium.
- Q11 — The acrosome contains enzymes that help the sperm penetrate the ovum.
- Q12 — It becomes a multi-cellular blastocyst.
- Q13 — Seminal vesicles and prostate.
- Q14 — The first milk secreted after childbirth, rich in antibodies.
- Q15 — Spermatogenesis: 4 sperm; oogenesis: 1 ovum + 3 polar bodies.
- Q16 — The sperm fuses with the ovum in the fallopian tube to form a zygote.
- Q17 — Nutrition, gas exchange and waste removal for the foetus; it secretes hCG and progesterone.
- Q18 — Head, neck, middle piece and tail.

Q19 — (a) Ovaries, fallopian tubes, uterus, cervix, vagina, vulva. (b) Oogonia → primary oocyte → secondary oocyte + polar body → ovum + polar body.

Q20 — (a) Zygote → morula → blastocyst → implantation. (b) Parturition by oxytocin; lactation by prolactin; colostrum gives immunity.