



Attempt questions first; check the separate key afterward. Use labelled diagrams where asked. Give scientific reasons; answer key covers closed questions.

A. Very short answers - 1 mark each

1. Name the cells producing testosterone in testes.
2. Name the supporting cells inside seminiferous tubules.
3. Name the sperm structure carrying enzymes for egg entry.
4. Where does human fertilisation usually occur?
5. Name the hormone chiefly triggering ovulation.
6. Name the ovarian structure formed after ovulation.
7. Name the embryonic structure that implants in the uterus.
8. Name the hormone causing milk ejection.

B. Short answers / practice - 2 marks each

9. Trace sperm transport from seminiferous tubules to urethra.
10. Describe male accessory glands and their secretions.
11. Explain why testes are located in the scrotum.
12. Draw a sperm and relate structure to function.
13. Describe the female reproductive system and oviduct regions.
14. Compare spermatogenesis and spermiogenesis.
15. Explain hormonal regulation of spermatogenesis.
16. Describe oogenesis and its meiotic arrests.
17. Compare unequal oocyte divisions with sperm formation.
18. Explain follicular development from primary to Graafian follicle.
19. Describe the menstrual, follicular, ovulatory and luteal phases.

20. Explain coordination of ovarian and uterine changes.

C. Application / reasoning - 3 marks each

21. What happens to the corpus luteum if pregnancy does not occur?
22. Explain sperm capacitation and acrosomal reaction at a basic level.
23. Describe the block to polyspermy.
24. Trace cleavage from zygote to morula and blastocyst.
25. Distinguish trophoblast and inner cell mass.
26. Explain implantation and placental formation.
27. State nutritive, respiratory, excretory and endocrine functions of placenta.
28. Name the placental hormone supporting the early corpus luteum.
29. Explain the foetal-ejection reflex and positive feedback in parturition.
30. How many sperm normally result from 50 primary spermatocytes?
31. How many functional ova normally result from 50 primary oocytes completing meiosis?

D. Extended practice - 5 marks each

32. Draw male and female reproductive systems and explain gamete pathways.
33. Compare spermatogenesis and oogenesis with ploidy and hormonal control.
34. Explain the menstrual cycle with a hormone-level sketch and uterine changes.
35. Trace fertilisation, implantation, pregnancy, parturition and the importance of colostrum.

ANSWER KEY - Numerical / closed questions

- 1) Leydig/interstitial cells. 2) Sertoli cells. 3) Acrosome. 4) Ampullary-isthmic junction of the oviduct. 5) LH surge. 6) Corpus luteum. 7) Blastocyst. 8) Oxytocin. 28) hCG. 30) 200. 31) Fifty.