HUMAN REPRODUCTION

1. Pouch in which testes are suspended outside the abdominal cavity, is
   (A) tunicaalbuginea
   (B) inguinal canal
   (C) epididymis
   (D) scrotum

2. Function of scrotum is to maintain the
   (A) temperature of testes
   (B) body temperature
   (C) level of growth hormone
   (D) level of male hormone
3. Approximate length and width of testis are
   (A) 4-5 cm and 2-3 cm
   (B) 5-6 cm and 3-4 cm
   (C) 6-7 cm and 4-5 cm
   (D) 7-8 cm and 8-9 cm

4. Compartments in mammalian testes are called
   (A) testicular lobules
   (B) seminiferous tubules
   (C) Sertoli cells
   (D) interstitial cells

5. Testicular lobules contain
    (A) 3-5 seminiferous tubules
    (B) 2-6 seminiferous tubules
    (C) 5-7 seminiferous tubules
    (D) 1-3 seminiferous tubules

6. The seminiferous tubules of the testis is lined on its inside by
    (A) spermatocytes
    (B) spermatogonia
    (C) cells of Sertoli
    (D) Both (B) and (C)

7. …… provide nutrition to the male germ cells.
    (A) Interstitial cells
    (B) Leydig cells
    (C) Sertoli cells
    (D) Both (A) and (B)

8. Which of the following cells present in the mammalian testes forms the sperms?
    (A) Leydig cells
    (B) Spermatogonia
    (C) Interstitial cells
    (D) Sertoli cells

9. Region outside the seminiferous tubules is called
    (A) interdigital space

(B) interferous space

(C) interstitial space

(D) blind space

10. Identify the accessory glands found in males.

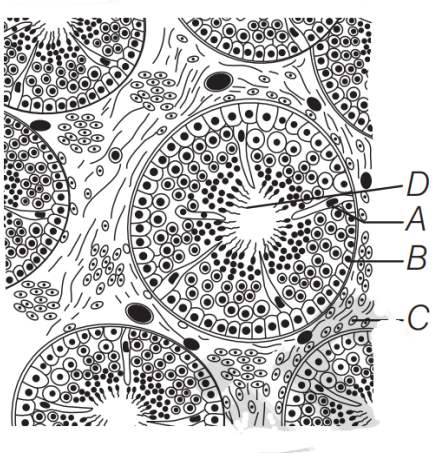
(A) Seminal vesicles

(B) Prostate gland

(C) Bulbourethral gland

(D) All of the above

11. The given diagram refers to TS of testis showing sectional view of a few seminiferous tubules. Identify the parts labelled A-D and select the correct option.



(A) A–Sertoli cells, B–Spermatozoa, C–Interstitial cells, D–Sperms

(B) A–Sertoli cells, B–Secondary spermatocyte, C–Interstitial cells, D–Spermatozoa

(C) A–Interstitial cells, B–Spermatogonia, C–Sertoli cells, D–Sperms

(D) A–Sertoli cells, B–Spermatogonia, C–Interstitial cells, D–Spermatozoa

12. Human Fallopian tube is about

(A) 8-9 cm long

(B) 9-10 cm long

(C) 10-12 cm long

(D) 12-17 cm long

13. Funnel-shaped part of oviduct closer to the ovary is called

(A) fimbriae

(B) infundibulum

(C) ampulla

(D) isthmus

14. The main function of fimbriae of Fallopian tube is

(A) help in development of ovary

(B) help in collection of the ovum after ovulation

(C) help in development of ova

(D) help in fertilisation

15. Choose the incorrect pair.

(A) Finger-like projections – Fimbriae

(B) Narrow part of oviduct – Ampulla

(C) Part of oviduct joining the uterus – Isthmus

(D) None of the above

16. Choose the incorrect pair.

(A) Cushion of fatty tissue covered by pubic hair –Mons pubis

(B) Membrane covering opening of vagina–Hymen

(C) Finger-like structure above the urethral opening –Clitoris

(D) Uterine layer exhibiting strong contraction during delivery–Endometrium

17. The main tissue present in breast is …… tissue.

(A) glandular

(B) squamous

(C) ciliated

(D) epithelium

18. Several mammary ducts join to form a wider mammary ampulla, which is connected to

(A) lactiferous duct

(B) seminiferous duct

(C) seminiferous tubules

(D) nipple

19. A sectional view of mammary gland shows

I. nipple and areola.

II. mammary lobes (alveolus) and duct.

III. ribs.

IV. ampulla and lactiferous duct.

Choose the correct option from the above.

(A) I, II, III and IV

(B) I, II and III

(C) III, IV and II

(D) I, IV and III

20. Which cells come earliest in the sequence of sperm production?

(A) Spermatozoa

(B) Spermatocyte

(C) Spermatid

(D) Spermatogonia

21. Which of the following undergoes meiosis-I division during spermatogenesis?

(A) Primary spermatocytes

(B) Secondary spermatocytes

(C) Sertoli cell

(D) Leydig cell

22. Which one of the following cells have haploid number of chromosome?

(A) Primary spermatocytes

(B) Secondary spermatocytes

(C) Spermatid

(D) Both (B) and (C)

23. During spermatogenesis, which cells are the first to contain haploid number of chromosomes?

(A) Spermatogonium

(B) Primary spermatocyte

(C) Secondary spermatocyte

(D) Spermatid

24. Spermatogenesis starts at puberty due to significant increase in the secretion of

(A) GnRH

(B) prolactin

(C) testosterone

(D) oestrogen

25. Sperms of mammals depend for movement on

(A) only tail

(B) tail and middle piece

(C) middle piece

(D) Only head

26. The reproductive cycle in the female primates such as monkeys, apes and human beings is called

(A) menstrual cycle

(B) oestrus cycle

(C) circadian cycle

(D) ovulatory cycle

27. The first menstruation that begins at puberty is called

(A) menopause

(B) ovulation

(C) gametogenesis

(D) menarch

28. In an ideal menstrual cycle, the menstrual phase last for

    (A) 3-5 days

    (B) 5-6 days

    (C) 1-3 days

    (D) 2-3 days

29. A regular cycling woman is not menstruating, which one of the following is the most likely to be the root cause?

    (A) Maintenance of the hypertrophical endometrial lining

    (B) Maintenance of high concentration of sex-hormones in the bloodstream

    (C) Regression of well-developed corpus luteum

    (D) Fertilisation of the ovum

30. What happens during the follicular phase of menstrual cycle?

    (A) Proliferation of endometrium

    (B) Reduction in blood supply to endometrium

    (C) Regression of endometrium

    (D) No effect on endometrium

31. When does ovulation occur in a healthy menstruating female?

    (A) 9-14 days

    (B) 14-16 days

    (C) 16-28 days

    (D) 20-26 days

32. Rapid secretion of LH in ovulatory phase causes

(A) rupturing of Graafian follicle

(B) release of ova

(C) ovulation

(D) All of the above

33. Everytime copulation does not lead to fertilisation and pregnancy because of failure of sperm to reach the

(A) ampulla

(B) cervix

(C) endometrium

(D) myometrium

34. During fertilisation, a sperm comes in contact with the zonapellucida layer of the ovum and induces changes in the membrane that block the entry of …A… . The secretions of the …B… help the sperm enter into the cytoplasm of the ovum. A B

(A) eggszonapellucida

(B) eggs acrosome

(C) additional sperms acrosome

(D) additional sperms zonapellucida

35. Trophoblast of blastocyst attaches to the

(A) endometrium

(B) myometrium

(C) perimetrium

(D) mesoderm

36. Inner cell mass or embryoblast gives rise to

(A) foetal part

(B) embryo

(C) notochord

(D) nourishment cell

Answer Key

1	(D)	2	(A)	3	(A)	4	(A)	5	(D)
6	(D)	7	(C)	8	(B)	9	(C)	10	(D)
11	(D)	12	(C)	13	(B)	14	(B)	15	(B)
16	(D)	17	(A)	18	(A)	19	(A)	20	(D)
21	(A)	22	(D)	23	(C)	24	(A)	25	(B)
26	(A)	27	(D)	28	(A)	29	(D)	30	(A)
31	(B)	32	(D)	33	(A)	34	(C)	35	(A)
36	(B)								

HINTS & EXPLANATIONS

2. (A) The testes are suspended outside the abdominal cavity within a pouch called scrotum. Scrotum maintains the temperature of testes, i.e. 2-2.5°C below the body temperature, necessary for spermatogenesis.

3. (A) Each human testis is oval in shape, with a length of about 4-5 cm and a width of about 2-3 cm.

6. (D) Each seminiferous tubule is lined on its inside by two types of cells called male germ cells (spermatogonia) and Sertoli cells.

9. (C) Region outside the seminiferous tubules is called interstitial space, contains small blood vessels and interstitial cells or Leydig cells.

10. (D) The accessory glands found in males are paired seminal vesicles, the unpaired prostate gland and the paired bulbourethral glands.

15. (B) contains the incorrect pair. It can be corrected as Ampulla is the wider part of oviduct. Rest all the pairs are correct.

16. (D) contains the incorrect pair and can be corrected as Myometrium is the muscular layer of uterus which exhibits strong contractions during delivery. Endometrium is the glandular layer, which undergoes cyclic changes during menstrual cycle. Rest all the pairs are correct.

18. (A) Several mammary ducts join to form a wider mammary ampulla which is connected to the lactiferous duct through which milk is sucked out.

21. (A) Primary spermatocytes (2n) undergo meiosis-I to give rise to haploid secondary spermatocyes. The secondary spermatocytes undergo meiosis-II to produce spermatids which are then released as spermatids.

23. (C) Secondary spermatocytes are the first cells in spermatogenesis in which the chromosome number becomes half. Thus, they contain haploid number of chromosomes.

24. (A) Spermatogenesis is initiated at puberty due to the increase in Gonadotropin Releasing Hormone (GnRH) by hypothalamus.

30. (A) During the follicular phase of menstrual cycle, the endometrium of the uterus regenerates through proliferation.