

- Q.1.** Select correct statement from the following wrt male reproductive system
- Testes are suspended in the scrotum.
 - Seminiferous tubules are the site of spermatogenesis.
 - Leydig cells are located within the lining of seminiferous tubules.
 - Penis is male external genitalia
 - Seminal vesicles is a male accessory glands
- A and B only
 - A, C, and D only
 - B, C, and E only
 - A, B, D, E only
- Q.2.** Which is true for spermatogenesis
- Spermatogenesis begins at puberty.
 - Spermatogonia are diploid and divide mitotically.
 - Primary spermatocytes undergo meiosis I to form secondary spermatocytes.
 - Secondary spermatocytes undergo meiosis II to form spermatids.
 - Spermiogenesis converts spermatids into spermatozoa.
- A, B, C, D are true only
 - A, B, C, D, E are all true
 - B, D, E are true only
 - A, C, E are true only
- Q.3.** Select correct statement from the following
- Sertoli cells nourish developing sperm and form blood-testis barrier.
 - Sertoli cells secrete testosterone.
 - Leydig cells secrete testosterone in response to LH.
 - FSH causes Sertoli cells to secrete some factors which help in the process of spermiogenesis
 - Androgen inhibits the process of spermatogenesis
- A, C, D, E are true
 - A, C, D are true
 - C, D, E are true
 - A, B only are true
- Q.4.** Select correct statement regarding sperm structure & features
- The head of sperm contains the nucleus and the acrosome.
 - The mid-piece contains many mitochondria for ATP production.
 - The tail (flagellum) is formed from axonemal microtubules and basal body (centriole).
 - Sperm DNA is haploid.
 - Sperm contain abundant cytoplasm.
- A, B, C, D are true only
 - A, C, D, E are true only
 - B, D, E are true only
 - A, B, E are true only
- Q.5.** Select true statement wrt Oogenesis
- Oogonia divide mitotically during fetal life and are diploid.
 - Primary oocytes form during fetal life and are arrested in prophase I until puberty.
 - At puberty, each month some primary oocytes complete meiosis I to form a secondary oocyte and the first polar body.
 - The secondary oocyte completes meiosis II before fertilization.
 - The secondary oocyte is haploid.
- A, B, D, E are true only
 - A, C, D are true only
 - B, D, E are true only
 - A, B, C, E are true only
- Q.6.** Select true statement wrt hormonal control & menstrual cycle phases
- FSH stimulates growth and maturation of ovarian follicles.
 - Rising estrogen from the follicle causes proliferation of the endometrium.
 - LH surge triggers ovulation.
 - Corpus luteum secretes progesterone to make endometrium secretory.
 - Corpus luteum retained in absence of fertilisation due to high secretion of LH from pituitary
- A, B, C, E are true
 - A, B, C, D are true
 - B, C, D are true
 - A, C, E are true

Q.7. Select true statement regarding events of fertilization

- A. It usually occur in ampullary region of fallopian tube
- B. Fertilization occur after process of insemination
- C. The acrosome reaction releases enzymes that digest the zona pellucida.
- D. Cortical reaction in the oocyte prevents polyspermy by altering the zona pellucida.
- E. Secretion of acrosome help the sperm enter into cytoplasm of the ovum through plasma membrane of ovum

- (1) All are true
- (2) A, B, C are true
- (3) B, C, D are true
- (4) C, D, E are true

Q.8. Select correct statement regarding placenta

- A. It is structural and functional unit between fetus and maternal body
- B. It is temporary endocrine gland
- C. It connected to embryo through umbilical cord
- D. It completely prevents passage of all harmful substances and microorganisms.
- E. It facilitates exchange of gases, nutrients and antibodies between mother and fetus.

- (1) A and B are true only
- (2) B and D are true only
- (3) B, C, D are true only
- (4) All statements are true except D

Q.9. Select correct statement regarding corpus luteum

- A. Corpus luteum secretes progesterone and some estrogen.
- B. If pregnancy occurs, hCG from the placenta maintains corpus luteum.
- C. If pregnancy does not occur, corpus luteum degenerates into corpus albicans.
- D. Corpus luteum directly forms the placenta.
- E. Corpus luteum forms from the ruptured follicle after ovulation.

- (1) A, B, C, E are true
- (2) B, C, D are true
- (3) A, D, E are true
- (4) C, D, E are true

Q.10. Regarding pregnancy hormones & lactation choose correct answer

- A. hCG is produced by placenta and maintains corpus luteum.
- B. Prolactin from anterior pituitary stimulates milk production (lactogenesis).
- C. Oxytocin from posterior pituitary causes milk ejection (let-down reflex).
- D. Prolactin is the primary hormone that triggers uterine contractions during labor.
- E. After the placenta forms, it becomes the major source of estrogen and progesterone.

Options:

- (1) A, B, D are true
- (2) A, C, D are true
- (3) B, D, E are true
- (4) A, B, C and E are true

Q.11. Select correct statement from the following

- A. When blastocyst embedded in endometrium of uterus the process is known as implantation
- B. Embryo with 8 to 16 blastomeres is called as morula
- C. Inner cell mass attached to endometrium directly
- D. Trophoblast get differentiated into embryo
- E. Meiotic division occur in zygote is called as cleavage

- (1) A, B, D, E are true only
- (2) A, B and C are true only
- (3) A and B are true only
- (4) C, D and E are true only

Q.12. Regarding menopause & related physiology choose correct option

- A. Menopause results from depletion of ovarian follicles and cessation of menstrual cycles.
- B. After menopause, blood levels of FSH and LH typically fall.
- C. Hot flushes and other symptoms may accompany menopause.
- D. Typical age of natural menopause is around 50 years.
- E. Hormone replacement therapy (HRT) may relieve some menopausal symptoms.

- (1) A, C, D, E are true (2) A, B, C are true
- (3) B, C, D are true (4) A, D, E are true

Q13. Choose correct options regarding early embryo development

- A. Zygote undergoes mitotic cleavage to form the morula.
- B. Morula typically has about 16 cells.
- C. Blastocyst consists of an outer trophoblast and an inner cell mass (ICM).
- D. Implantation generally occurs at the morula stage.
- E. Inner cell mass gives rise to the embryo proper.

- (1) A, B, C, E are true
- (2) A, C, D are true
- (3) B, D, E are true
- (4) A, B, D are true

Q.14. Select correct statement from the following

- A. Chorionic villi are finger like projection on trophoblast
- B. Placenta secrete several hormones like hCG, hPL, estrogen, progesterone etc.
- C. hCG, hPL and relaxin are produced in women only during pregnancy
- D. Inner cell mass contain totipotent stem cells
- E. Human pregnancy usually last 10 months

- (1) A, C, D, E are true
- (2) A, B, E are true
- (3) B, D, E are true
- (4) A, B, C D only are true

Q.15 Select correct regarding male reproductive endocrinology

- A. LH stimulates Leydig cells to produce testosterone.
- B. Testosterone is necessary for normal spermatogenesis.
- C. Testosterone is secreted by Sertoli cells.
- D. FSH stimulates Sertoli cells to secrete androgen-binding protein (ABP).
- E. Inhibin from Sertoli cells negatively regulates FSH secretion.

- (1) A, B, D, E are true
- (2) A, C, D are true
- (3) B, C, E are true
- (4) A, B, C, E are true

Q.16. Select correct statement regarding ovarian follicles & fate

- A. Primordial follicles contain primary oocytes arrested in prophase I.
- B. Graafian (mature) follicle contains a secondary oocyte arrested in metaphase II.
- C. Accumulation of follicular fluid forms the antrum in tertiary (antral) follicles.
- D. Corpus luteum forms before ovulation.
- E. Atresia is degeneration of ovarian follicles.

- (1) A, B, C, D are true
- (2) A and D are true only
- (3) B and D are true only
- (4) A, B, C, E are true

Q.17. Choose correct option regarding following statement about mammary gland in female

- A. Paired structure made up of glandular tissue and variable amount of fat
- B. Mammary lobe, lactiferous duct, ampulla mammary alveolus are part of glandular portion of mammary gland
- C. It is functional in females only
- D. Their development require several hormones like prolactin, estrogen, progesterone etc.
- E. Glandular tissue of each breast is divided into 20-25 mammary lobes.

- (1) A, B, C, D are true
- (2) A, C, E are true
- (3) B, D, E are true
- (4) C, D only are true

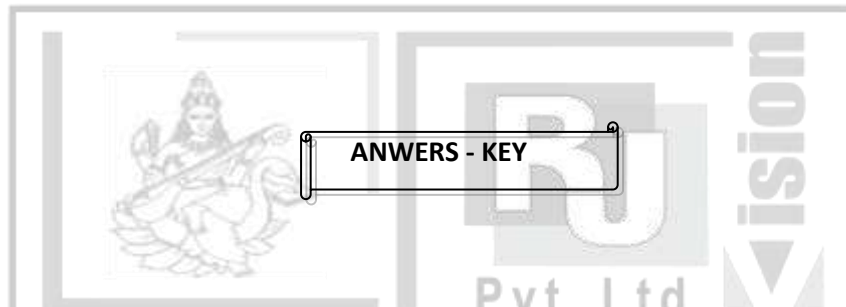
Q.18. Choose correct statement from the following

- A. Humans are sexually reproducing and viviparous
- B. The time of conception to birth is known as gestation period
- C. Process of delivery of baby is parturition
- D. Gametogenesis is formation of gametes
- E. Transfer of sperm into female genital tract is insemination

- (1) A and B are true only
- (2) C and D are true only
- (3) C and E are true only
- (4) All A,B,C,D,E are true

- Q.19.** Choose correct option regarding lactation
- A. Lactation usually occur in non-pregnant female
 - B. Process of formation of milk by mammary gland is called lactation
 - C. Oxytocin triggers the “let-down” reflex causing ejection of milk from mammary glands
 - D. Infant suckling activates a reflex that increases prolactin and oxytocin release.
 - E. Milk produce during initial few days of lactation is colostrum
- (1) A, B, D, E are true
 - (2) A, C, D are true
 - (3) B, C, D, E are true
 - (4) A, D only are true

- Q20.** Select correct statement regarding menstrual cycle
- A. It is reproductive cycle in the male primates
 - B. The first menstruation begins at puberty and is called menarche
 - C. Usually one ovum is released during ovulation in the middle of each menstrual cycle
 - D. The secretion of only FSH increase and LH decrease gradually during the follicular phase
 - E. During menstruation all events of menstrual cycle stops except ovulation
- (1) B, C, E are true only
 - (2) A and C are true only
 - (3) A, B, E are true only
 - (4) B, D, E are true only



Q	1	2	3	4	5	6	7	8	9	10
Ans.	(4)	(2)	(2)	(1)	(1)	(2)	(1)	(4)	(1)	(4)
Q	11	12	13	14	15	16	17	18	19	20
Ans.	(3)	(1)	(1)	(1)	(1)	(4)	(1)	(4)	(3)	(2)