Human Reproduction and Reproductive Health

1. **Assertion (A):** Placenta is combined structure of foetal tissue & maternal tissue
Reason (R): Placenta formation is completed before 6 weeks of pregnancy
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

2. **Assertion (A):** Seminal vesicle is called as accessory sex organ of male.
Reason (R): Seminal vesicle help in union of gametes.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

3. **Assertion (A):** Testes are retroperitoneal organ in man.
Reason (R): Peritoneal layer covers the testes on dorsal side.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

4. **Assertion (A):** The oviducts (fallopian tubes), uterus and vagina constitute the female accessory ducts.
Reason (R): The edges of the infundibulum possess finger-like projections called fimbriae, which help in collection of the ovum after ovulation.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

5. **Assertion (A):** In ovarian cycle corpus luteum is an exocrine gland.
Reason (R): It secretes the pheromones.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

6. **Assertion (A):** Failure of testes to descend into the scrotum causes sterility in man
Reason (R): Higher temperature of the abdomen than in the scrotum is suitable for sperm development.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

7. **Assertion (A):** The menstrual flow results due to breakdown of endometrial lining of the uterus and its blood vessels.
Reason (R): Rapid fall in the level of progesterone takes place due to degeneration of corpus luteum.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

8. **Assertion (A):** Corpus albicans is an inactive structure which is found in the ovary.
Reason (R): Corpus albicans secretes the progesterone hormone after ovulation.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

9. **Assertion (A):** Menarche starts around the age of puberty.
Reason (R): After birth oocyte is matured and developed to form Graafian follicle.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

10. **Assertion (A):** Corpus luteum is present in proliferative phase of menstrual cycle.
Reason (R): High concentration of progesterone is present in proliferative phase.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

11. **Assertion (A):** Testes are situated in the extra abdominal cavity.
Reason (R): Spermatogenesis process requires less temperature as compared to body temperature.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

12. **Assertion (A):** During embryonic stage testes descend down and at the time of birth, It comes into scrotum.
Reason (R): Spermatogeneis process requires less than body temperature.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

13. **Assertion (A):** After ovulation ruptured graafian follicle transforms into corpus luteum.
Reason (R): Corpus luteum act as endocrine gland and it is stable through out life.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

14. **Assertion (A):** After fertilization corpus luteum is stable till parturition.
Reason (R): After 3 months of intrauterine life, it dominantly secretes progesterone.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

15. **Assertion (A):** Ovulation occurs on the 14^{th} day of menstrual cycle in a human female.
Reason (R): The high level of estrogen is controlled 2 or 3 days before this event due to negative feed back.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

16. **Assertion (A):** Sperm formation continues even in old men but formation of ovum ceases in women around the age of fifty years.
Reason (R): Human male having the longer life span than the female.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

17. **Assertion (A):** In barrier methods ovum and sperms are prevented form physically meeting with the help of barriers.
Assertion (A): Diaphragms, cervical caps an and vaults are barrier made of rubber that are inserted into the female reproductive tract.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

18. **Assertion (A):** Formation of sperm takes place in seminiferous tubules of testes.
Reason (R): Seminiferous tubules lined with male germ cells and sertoli cells.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

19. **Assertion (A):** Periodic abstinence is a natural method, where couples abstain from coitus.
Reason (R): Coitus from day 5-10 of the menstrual cycle should be avoided, because this is the time of ovulation.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

20. **Assertion (A):** The menstrual flow results due to breakdown of endometrial lining of the uterus and its blood vessels.
Reason (R): Rapid fall in the level of progesterone takes place due to degeneration of corpus luteum.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

21. **Assertion (A):** During follicular phase, the primary follicles in the ovary grow to become a fully mature Graafian follicle.
Reason (R): Endometrium of uterus regenerates during follicular phase due to increasing level of progesterone.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

22. **Assertion (A):** The changes in the ovarian cycle as well as uterine cycle are induced by changes in the level of pituitary and ovrian hormones.
Reason (R): The secretion of LH & FSH increases gradually during the follicular phase and estrogen also secreted by developing follicle.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

23. **Assertion (A):** The menstrual cycle not occurs in the female aged more than around 50 years of age.
Reason (R): Endometrium disintegrates in their uterus completely.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

24. **Assertion (A):** Regular cyclic menstruation is an indicator of normal reproductive phase.
Reason (R): It occurs throughout the reproductive phase of normal female.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

25. **Assertion (A):** All copulations not lead to fertilization and pregnancy.

Reason (R): Fertilization can only occur if the ovum and sperms are transported simultaneously to the ampullary region.

(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

26. **Assertion (A):** The acrosomal secretions of sperm; help it in entering in the cytoplasm of the ovum.

Reason (R): It contains sperm lysin.

(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

27. **Assertion (A):** The nucleus of sperm fuses with the nucleus of ovum, before the formation of ootid.

Reason (R): Diploid nuclear status of organism is essential for its development.

(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

28. **Assertion (A):** Females not participate in the determination of the sex of baby.

Reason (R): Human male is heterogametic.

(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

29. **Assertion (A):** hCG, hPL and relaxin are produced in women only during pregnancy.

Reason (R): These hormones are produced by placenta.

(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

30. **Assertion (A):** The levels of hormone like estrogens, progestogens, cortisol, Prolactin, thyroxin etc. are increased several folds in the maternal blood during pregnancy.

Reason (R): Increased level of these hormones is essential for supporting the foetal growth and maintenance of pregnancy.

(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

31. **Assertion (A):** Foetal ejection reflex triggers release of oxytocin from the maternal pituitary.

Reason (R): Signals for parturition originate from fully developed foetus alone.

(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

32. **Assertion (A):** Breast-feeding during the initial period of infant growth is recommended by doctors.

Reason (R): The milk produced during initial few days contains several antibodies.

(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

33. **Assertion (A):** Primary spermatocytes of testes are haploid.
Reason (R): Primary spermatocytes are formed by meiosis I in the spermatogonia.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

34. **Assertion (A):** Spermiation is the transformation of spermatid into sperm.
Reason (R): During spermiation, sperms get nutrition from Sertoli cells.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

35. **Assertion (A):** Contraceptive pills inhibit ovulation and implantation as well as alter the quality of cervical mucus to prevent or retard the entry of sperms.
Reason (R): 'Saheli' a new oral contraceptive for females is once a week pill with very few side effects and contains a non steroidal preparation.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

36. **Assertion (A):** Surgical method blocks gamete transport and thereby prevent conception.
Reason (R): Surgical method are highly effective but their reversibility is very poor.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

37. **Assertion (A):** During oogenesis polar bodies are formed.
Reason (R): Primary function of formation of polarbodies is to bring haploidy of ovum.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

38. **Assertion (A):** When sperm enters in egg, one polar body is released in human.
Reason (R): At the time of ovulation eggs found in secondary Oocyte phase.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

39. **Assertion (A):** Cleavage in human zygote is holoblastic.
Reason (R): Its egg contain enormous quantity of yolk.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

40. **Assertion (A):** All eutherian are placental mammals.
Reason (R): All placental mammals have menstrual cycle.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

41. **Assertion (A):** Some athletes take "steroids" in an attempt to enhance their physical performance but not advisable.
Reason (R): This can lead to decreased sperm production and even sterility.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

42. **Assertion (A):** Viruses are an exception to cell theory.
Reason (R): Viruses are noncellular in nature.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

43. **Assertion (A):** In five kingdom system, Whittaker emphasized on reproductive characters of living beings.
Reason (R): Reproductive characters show less variations.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

44. **Assertion (A):** Archaebacteria are most resistant to adverse environmental conditions.
Reason (R): In archaebacteria, cell wall is highly resistant and complex.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

45. **Assertion (A):** Spermiation takes place in epididymis.
Reason (R): Sertoli cells remain attached to spermatozoa in epididymis.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

46. **Assertion (A):** Parturition is induced by a complex neuroendocrine mechanism.
Reason (R): The signals for parturition originate from fully developed fetus and placenta.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

47. **Assertion (A):** Placenta act as endocrine gland
Reason (R): It secretes steroidal hormones to maintain structure of corpus luteum.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

48. **Assertion (A):** Ovulation occurs due to LH surge.
Reason (R): LH surge induces completion of meiosis I in primary oocyte.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

49. **Assertion (A):** Seminal plasma lacks spermatozoa.
Reason (R): Seminal plasma contains secretions of seminal vesicles only.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

50. **Assertion (A):** Saheli 'once a week' pill has very few side effects and high contraceptive value.
Reason (R): Saheli contains a non-steroidal preparation.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

51. **Assertion (A):** In the absence of fertilization corpus luteum degenerates in 7 to 10 days
Reason (R): Degeneration of corpus luteum is due to non availability of FSH from anterior pituitary.
(1) Both (A) & (R) are true and the (R) is the correct explanation of the (A)
(2) Both (A) & (R) are true but the (R) is not the correct explanation of the (A)
(3) (A) is true but (R) is false
(4) Both (A) and (R) are false

Directions: In the following questions, a statement of assertion is followed by a statement of reason. Mark the correct choice as:
(a) If both Assertion and Reason are true and Reason is the correct explanation of Assertion.
(b) If both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
(c) If Assertion is true but Reason is false.
(d) If both Assertion and Reason are false.

52. **Assertion :** Testicular lobules are the compartments present in testes.
Reason : These lobules are involved in the process of fertilization.

53. **Assertion :** Interstitial cell is present in the region outside the seminiferous tubule called interstitial spaces.
Reason : Interstitial cells provide nutrition to the sertoli cells.

54. **Assertion:** Each seminiferous tubule is lined on its inside by three type of cells.
Reason: These cells are male germ cells, Sertoli cells and Leydig cells.

55. **Assertion:** The female external genitalia includes mons pubis, labia majora and labia minora.
Reason: The glandular tissue of each breast is divided into 5-10 mammary lobes.

56. **Assertion:** The sperm head contains a cap-like structure called acrosome.
Reason: Acrosome is filled with enzymes that help in fertilisation of the ovum.

57. **Assertion:** A drop in temperature does not affect spermatogenesis.
Reason: During temperature drop, the smooth muscles contract and bring the testes closer to the pelvic cavity.

58. **Assertion:** The human male ejaculates about 50-100 million sperms during a coitus.
Reason: For normal shape and size.

59. **Assertion:** At puberty, human male develops secondary sexual characters.
Reason: At puberty, there is decreased secretion of testosterone in male.

60. **Assertion:** Head of sperm consists of acrosome and mitochondria.
Reason : Acrosome contains spiral row of mitochondria.

61. **Assertion :** Corpus luteum degenerates in the absence of fertilization.
Reason : Progesterone level decreases.

62. **Assertion :** Death is one of the important regulatory process on earth.
Reason : It avoids over-crowding caused by continuous reproduction.

63. **Assertion :** Senescence is the time when age associated defects are manifested.
Reason : Certain genes may be undergoing sequential switching on and off during one's life.

64. **Assertion:** Not all copulation leads to pregnancy.
Reason: Fertilisation can only occur if the ovum and sperms are transported simultaneously to the ampullary isthmic junction.

65. **Assertion :** Implantation is the process of attachment of blastocyst on uterine endometrium.
Reason : Implantation is controlled by trophoblast and occurs by decidual cell reaction.

66. **Assertion:** There is generally monospermy in most of animals.
Reason: Vitelline membrane of ovum checks polyspermy.

67. **Assertion:** All Metatherian are placental mammals.
Reason: All placental mammals have menstrual cycle.

ANSWER KEY																			
Que.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
Ans.	3	1	4	2	4	3	1	3	3	4	1	1	3	3	3	3	1	1	2	1
Que.	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**	**35**	**36**	**37**	**38**	**39**	**40**
Ans.	3	1	3	1	1	1	4	1	1	1	3	1	4	4	3	2	1	2	3	3
Que.	**41**	**42**	**43**	**44**	**45**	**46**	**47**	**48**	**49**	**50**	**51**									
Ans.	1	1	1	1	4	2	3	3	3	2	3									

52.	53.	54.	55.	56.	57.	58.	59.	60.	61.	62.	63.	64.	65.	66.	67.	
D	C	D	c	b	A	D	C	C	B	A	A	A	B	B	b	