

HUMAN REPRODUCTION

PYQ

AIPMT 2006

1. Sertoli cells are regulated by the pituitary hormone known as:-
(1) FSH (2) GH
(3) Prolactin (4) LH
2. Withdrawal of which of the following hormones is the immediate cause of menstruation?
(1) Estrogen (2) FSH
(3) FSH-RH (4) Progesterone

AIPMT 2007

3. In the human female, menstruation can be deferred by the administration of :-
(1) FSH only
(2) LH only
(3) Combination of FSH and LH
(4) Combination of estrogen and progesterone
4. Which part of ovary in mammals acts as an endocrine gland after ovulation?
(1) Vitelline membrane
(2) Graffian follicle
(3) Stroma
(4) Germinal epithelium

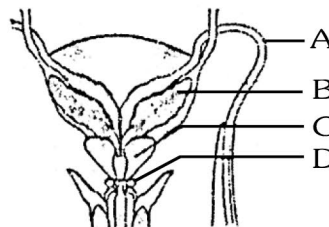
AIPMT 2008

5. Which one of the following statements is incorrect about menstruation?
(1) At menopause in the female, there is especially abrupt increase in gonadotropic hormones
(2) The beginning of the cycle of menstruation is called menarche
(3) During normal menstruation about 40 ml blood is lost
(4) The menstrual fluid can easily clot
6. Which extraembryonic membrane in humans prevents desiccation of the embryo inside the uterus:-
(1) Yolk sac (2) Amnion
(3) Chorion (4) Allantois

7. In human adult females oxytocin:-
(1) Stimulates pituitary to secrete vasopressin
(2) Causes strong uterine contractions during parturition
(3) Is secreted by anterior pituitary
(4) stimulates growth of mammary glands
8. In humans, at the end of the first meiotic division, the male germ cells differentiate into the:-
(1) Spermatids
(2) Spermatozonia
(3) Primary spermatocytes
(4) Secondary spermatocytes

AIPMT 2009

9. Seminal plasma in humans is rich in :-
(1) Fructose and certain enzymes but poor in calcium
(2) Fructose, calcium and certain enzymes
(3) Fructose and calcium but has no enzymes
(4) Glucose and certain enzymes but has no calcium
10. Given below is a diagrammatic sketch of a portion of human male reproductive system. Select the correct set of the names of the parts labelled A, B, C, D :-



- (1) A-Ureter, B-Seminal vesicle, C-Prostate, D-Bulbourethral gland
- (2) A-Ureter, B-Prostate, C-Seminal vesicle, D-Bulbourethral gland
- (3) A-Vas deferens, B-seminal vesicle, C-Prostate, D-Bulbourethral gland
- (4) A-Vas deferens, B-seminal vesicle, C-Bulbourethral gland, D-Prostate

11. Which one of the following is the correct matching of the events occurring during menstrual cycle?
- (1) Menstruation : Breakdown of myometrium and ovum not fertilised
 - (2) Ovulation : LH and FSH attain peak level and sharp fall in the secretion of progesterone.
 - (3) Proliferative phase : Rapid regeneration of myometrium and maturation of Graafian follicle.
 - (4) Development of corpus luteum : Secretory phase and increased secretion of progesterone.
12. The correct sequence of spermatogenic stages leading to the formation of sperms in a mature human testis is :-
- (1) Spermatogonia – Spermatid – Spermatocyte – Sperms
 - (2) Spermatocyte – Spermatogonia – Spermatid – Sperms
 - (3) Spermatogonia – Spermatocyte – Spermatid – Sperms
 - (4) Spermatid – Spermatocyte – Spermatogonia – Sperms
16. The second maturation division of the mammalian ovum occurs :-
- (1) In the Graafian follicle following the first maturation division
 - (2) Shortly after ovulation before the ovum makes entry into the Fallopian tube
 - (3) Until after the ovum has been penetrated by a sperm
 - (4) Until the nucleus of the sperm has fused with that of the ovum
17. Which one of the following statements about morula in humans is correct?
- (1) It has more cytoplasm and more DNA than an uncleaved zygote
 - (2) It has almost equal quantity of cytoplasm as an uncleaved zygote but much more DNA
 - (3) It has far less cytoplasm as well as less DNA than in an uncleaved zygote
 - (4) It has more or less equal quantity of cytoplasm and DNA as in uncleaved zygote

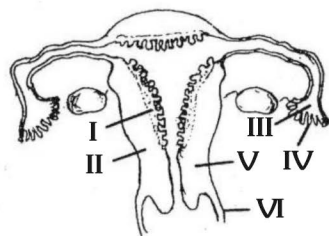
AIPMT 2010

13. Which one of the following statements about human sperm is correct?
- (1) Acrosome serves no particular function
 - (2) Acrosome has a conical pointed structure used for piercing and penetrating the egg, resulting in fertilisation
 - (3) The sperm lysins in the acrosome dissolve the egg envelope facilitating fertilisation
 - (4) Acrosome serves as a sensory structure leading the sperm towards the ovum
14. The part of Fallopian tube closest to the ovary is:-
- (1) Ampulla
 - (2) Isthmus
 - (3) Infundibulum
 - (4) Cervix
15. The signals for parturition originate from:-
- (1) Fully developed foetus only
 - (2) Placenta only
 - (3) Placenta as well as fully developed foetus
 - (4) Oxytocin released from maternal pituitary

AIPMT 2011

18. If for some reason, the vasa efferentia in the human reproductive system get blocked, the gametes will not be transported from :-
- (1) Testes to epididymis
 - (2) Epididymis to vas deferens
 - (3) Ovary to uterus
 - (4) Vagina to uterus
19. The testes in humans are situated outside the abdominal cavity inside a pouch called scrotum. The purpose served is for :-
- (1) Maintaining the scrotal temperature lower than the internal body temperature
 - (2) Escaping any possible compression by the visceral organs.
 - (3) Providing more space for the growth of epididymis
 - (4) Providing a secondary sexual feature for exhibiting the male sex.

20. The figure given below depicts a diagrammatic sectional view of the female reproductive system of humans. Which one set of three parts out of I–VI have been correctly identified?



- (1) (II)–Endometrium, (III)–Infundibulum, (IV)–Fimbriae
 (2) (III)–Infundibulum, (IV)–Fimbriae, (V)–Cervix
 (3) (IV)–Oviducal funnel, (V)–Uterus, (VI)–Cervix
 (4) (I)–Perimetrium, (II)–Myometrium, (III)–Fallopian tube

AIPMT 2012

21. In a normal pregnant woman, the amount of total gonadotropin activity was assessed. The result expected was :-
- (1) High levels of FSH and LH in uterus to stimulate endometrial thickening
 (2) High levels of circulating HCG to stimulate estrogen and progesterone synthesis
 (3) High level of circulating FSH and LH in the uterus to stimulate implantation of the embryo
 (4) High level of circulating HCG to stimulate endometrial thickening
22. Which one of the following statements is false in respect of viability of mammalian sperm?
- (1) Viability of sperm is determined by its motility
 (2) Sperms must be concentrated in a thick suspension
 (3) Sperm is viable for only up to 24 hours
 (4) Survival of sperm depends on the pH of the medium and is more active in alkaline medium

23. Signals for parturition originate from :-
- (1) Placenta only
 (2) Fully developed foetus only
 (3) Both placenta as well as fully developed foetus
 (4) Oxytocin released from maternal pituitary

AIPMT 2013

24. Which one of the following is not the function of placenta? It :-
- (1) secretes oxytocin during parturition
 (2) facilitates supply of oxygen and nutrients to embryo
 (3) secretes estrogen
 (4) facilitates removal of carbon dioxide and waste material from embryo
25. Menstrual flow occurs due to lack of :-
- (1) Vasopressin (2) Progesterone
 (3) FSH (4) Oxytocin

AIPMT 2014

26. The main function of mammalian corpus luteum is to produce :
- (1) estrogen only
 (2) progesterone
 (3) human chorionic gonadotropin
 (4) relaxin only
27. Select the correct option describing gonadotropin activity in a normal pregnant female :-
- (1) High level of FSH and LH stimulates the thickening of endometrium.
 (2) High level of FSH and LH facilitate implantation of the embryo.
 (3) High level of hCG stimulates the synthesis of estrogen and progesterone.
 (4) High level of hCG stimulates the thickening of endometrium.

AIPMT 2015

28. Capacitation refers to changes in the :-
- (1) Ovum before fertilization
 (2) Ovum after fertilization
 (3) Sperm after fertilization
 (4) Sperm before fertilization

29. Hysterectomy is surgical removal of :-
 (1) Prostate gland (2) Vas-deferense
 (3) Mammary glands (4) Uterus
30. Which of the following cells during gametogenesis is normally diploid?
 (1) Spermatid
 (2) Spermatogonia
 (3) Secondary polar body
 (4) Primary polar body
31. Which of these is not an important component of initiation of parturition in humans?
 (1) Synthesis of prostaglandins
 (2) Release of oxytocin
 (3) Release of prolactin
 (4) Increase in estrogen and progesterone ratio

Re-AIPMT 2015

32. Ectopic pregnancies are referred to as :-
 (1) Pregnancies terminated due to hormonal imbalance
 (2) Pregnancies with genetic abnormality.
 (3) Implantation of embryo at site other than uterus.
 (4) Implantation of defective embryo in the uterus
33. Which of the following events is not associated with ovulation in human female?
 (1) LH surge
 (2) Decrease in estradiol
 (3) Full development of Graafian follicle
 (4) Release of secondary oocyte
34. In human females, meiosis-II is not completed until?
 (1) birth
 (2) puberty
 (3) fertilization
 (4) uterine implantation
35. Which of the following layers in an antral follicle is acellular?
 (1) Zona pellucida (2) Granulosa
 (3) Theca internal (4) Stroma

NEET-I 2016

36. Fertilization in humans is practically feasible only if:-
 (1) the sperms are transported into vagina just after the release of ovum in fallopian tube
 (2) the ovum and sperms are transported simultaneously to ampullary isthmic junction of the fallopian tube
 (3) the ovum and sperms are transported simultaneously to ampullary - isthmic junction of the cervix
 (4) the sperms are transported into cervix within 48 hrs of release of ovum in uterus
37. Select the incorrect statement :-
 (1) FSH stimulates the sertoli cells which help in spermiogenesis
 (2) LH triggers ovulation in ovary
 (3) LH and FSH decrease gradually during the follicular phase
 (4) LH triggers secretion of androgens from the Leydig cells
38. Changes in GnRH pulse frequency in females is controlled by circulating levels of :-
 (1) estrogen and progesterone
 (2) estrogen and inhibin
 (3) progesterone only
 (4) progesterone and inhibin
39. Identify the correct statement on 'inhibin' :-
 (1) Inhibits the secretion of LH, FSH and Prolactin.
 (2) Is produced by granulose cells in ovary and inhibits the secretion of FSH.
 (3) Is produced by granulose cells in ovary and inhibits the secretion of LH.
 (4) Is produced by nurse cells in testes and inhibits the secretion of LH.

NEET-II 2016

40. Several hormones like hCG, hPL, estrogen, progesterone are produced by :-
 (1) Fallopian tube (2) Pituitary
 (3) Ovary (4) Placenta

41. Which of the following depicts the correct pathway of transport of sperms?
- (1) Rete testis → Vas deferens → Efferent ductules → Epididymis
 - (2) Efferent ductules → Rete testis → Vas deferens → Epididymis
 - (3) Rete testis → Efferent ductules → Epididymis → Vas deferens
 - (4) Rete testis → Epididymis → Efferent ductules → Vas deferens
42. Match Column-I with Column-II and select the correct option using the codes given below:-
- | Column-I | Column-II |
|------------------|--------------------------------|
| a. Mons pubis | i. Embryo formation |
| b. Antrum | ii. Sperm |
| c. Trophoctoderm | iii. Female external genitalia |
| d. Nebenkern | iv. Graafian follicle |
- Codes:**
- (1) a-iii, b-i, c-iv, d-ii
 - (2) a-i, b-iv, c-iii, d-ii
 - (3) a-iii, b-iv, c-ii, d-i
 - (4) a-iii, b-iv, c-i, d-ii

NEET-UG 2016

43. Capacitation occurs in :-
- (1) Epididymis
 - (2) Vas deferens
 - (3) Female reproductive tract
 - (4) Rete testis
44. A temporary endocrine gland in the human body is:-
- (1) Corpus cardiacum
 - (2) Corpus luteum
 - (3) Corpus allatum
 - (4) Pineal gland
45. GnRH, a hypothalamic hormone, needed in reproduction, acts on:-
- (1) anterior pituitary gland and stimulates secretion of LH and FSH.
 - (2) posterior pituitary gland and stimulates secretion of oxytocin and FSH.
 - (3) posterior pituitary gland and stimulates secretion of LH and relaxin.
 - (4) anterior pituitary gland and stimulates secretion of LH and oxytocin.

NEET-UG 2018

46. Hormones secreted by the placenta to maintain pregnancy are :
- (1) hCG, hPL, progestogens, prolactin
 - (2) hCG, hPL, estrogens, relaxin, oxytocin
 - (3) hCG, hPL, progestogens, estrogens
 - (4) hCG, progestogens, estrogens, glucocorticoids
47. The difference between spermiogenesis and spermiation is :-
- (1) In spermiogenesis spermatids are formed, while in spermiation spermatozoa are formed.
 - (2) In spermiogenesis spermatozoa are formed, while in spermiation spermatids are formed.
 - (3) In spermiogenesis spermatozoa from Sertoli cells are released into the cavity of seminiferous tubules, while in spermiation spermatozoa are formed.
 - (4) In spermiogenesis spermatozoa are formed, while in spermiation spermatozoa are released from Sertoli cells into the cavity of seminiferous tubules.
48. The amnion of mammalian embryo is derived from :-
- (1) ectoderm and mesoderm
 - (2) endoderm and mesoderm
 - (3) mesoderm and trophoblast
 - (4) ectoderm and endoderm

NEET-UG 2019

49. Select the correct sequence of transport of sperm cells in male reproductive system :-
- (1) Testis → Epididymis → Vasa efferentia → Rete testis → Inguinal canal → Urethra
 - (2) Seminiferous tubules → Rete testis → Vasa efferentia → Epididymis → Vas deferens → Ejaculatory duct → Urethra → Urethral meatus
 - (3) Seminiferous tubules → Vasa efferentia → Epididymis → Inguinal canal → Urethra
 - (4) Testis → Epididymis → Vasa efferentia → Vas deferens → Ejaculatory duct → Inguinal canal → Urethra → Urethral meatus

50. Extrusion of second polar body from egg nucleus occurs :
- (1) after entry of sperm but before fertilization
 - (2) after fertilization
 - (3) before entry of sperm into ovum
 - (4) simultaneously with first cleavage

NEET-UG 2019 (Odisha)

51. No new follicles develop in the luteal phase of the menstrual cycle because :
- (1) Follicles do not remain in the ovary after ovulation
 - (2) FSH levels are high in the luteal phase
 - (3) LH levels are high in the luteal phase
 - (4) Both FSH and LH levels are low in the luteal phase

NEET-UG 2020

52. Which of the following hormone levels will cause release of ovum (ovulation) from the Graafian follicle?
- (1) Low concentration of FSH
 - (2) High concentration of Estrogen
 - (3) High concentration of Progesterone
 - (4) Low concentration of LH
53. Match the following columns and select the correct option :-
- | Column-I | Column-II |
|---------------------------|---|
| (a) Placenta | (i) Androgens |
| (b) Zona pellucida | (ii) Human Chorionic Gonadotropin (hCG) |
| (c) Bulbo-urethral glands | (iii) Layer of the ovum |
| (d) Leydig cells | (iv) Lubrication of the Penis |
- (1) (a)-(ii), (b)-(iii), (c)-(iv), (d)-(i)
 - (2) (a)-(iv), (b)-(iii), (c)-(i), (d)-(ii)
 - (3) (a)-(i), (b)-(iv), (c)-(ii), (d)-(iii)
 - (4) (a)-(iii), (b)-(ii), (c)-(iv), (d)-(i)
54. Meiotic division of the secondary oocyte is completed :-
- (1) At the time of fusion of a sperm with an ovum
 - (2) Prior to ovulation
 - (3) At the time of copulation
 - (4) After zygote formation

NEET-UG 2021

55. Receptors for sperm binding in mammals are present on:-
- (1) Corona radiata
 - (2) Vitelline membrane
 - (3) Perivitelline space
 - (4) Zona pellucida
56. Which of these is not an important component of initiation of parturition in humans?
- (1) Increase in estrogen and progesterone ratio
 - (2) Synthesis of prostaglandins
 - (3) Release of Oxytocin
 - (4) Release of Prolactin
57. Which of the following secretes the hormone, relaxin, during the later phase of pregnancy?
- (1) Graafian follicle
 - (2) Corpus luteum
 - (3) Foetus
 - (4) Uterus

NEET-UG 2022

58. Given below are two statements:
- Statement I:** The release of sperms into the seminiferous tubules is called spermiation.
- Statement II:** Spermiogenesis is the process of formation of sperms from spermatogonia.
- In the light of the above statements, choose the **most appropriate** answer from the options given below:
- (1) Both **Statement I** and **Statement II** are incorrect
 - (2) **Statement I** is correct but **Statement II** is incorrect
 - (3) **Statement I** is incorrect but **Statement II** is correct
 - (4) Both **Statement I** and **Statement II** are correct
59. Which of the following statements are true for spermatogenesis but **do not** hold true for Oogenesis?
- (a) It results in the formation of haploid gametes
 - (b) Differentiation of gamete occurs after the completion of meiosis

- (c) Meiosis occurs continuously in a mitotically dividing stem cell population
- (d) It is controlled by the Luteinising hormone (LH) and Follicle Stimulating Hormone (FSH) secreted by the anterior pituitary

(e) It is initiated at puberty

Choose the **most appropriate** answer from the options given below:

- (1) (b) and (c) only
- (2) (b), (d) and (e) only
- (3) (b), (c) and (e) only
- (4) (c) and (e) only

Re-NEET-UG 2022

60. Arrange the components of mammary gland. (from proximal to distal)

- (a) Mammary duct
- (b) Lactiferous duct
- (c) Alveoli
- (d) Mammary ampulla
- (e) Mammary tubules

Choose the most appropriate answer from the options given below :

- (1) (c) → (a) → (d) → (e) → (b)
- (2) (b) → (c) → (e) → (d) → (a)
- (3) (c) → (e) → (a) → (d) → (b)
- (4) (e) → (c) → (d) → (b) → (a)

61. How many secondary spermatocytes are required to form 400 million spermatozoa ?

- (1) 50 million (2) 100 million
- (3) 200 million (4) 400 million

62. Given below are two statements : one is **labelled** as **Assertion (A)** and the other is labelled as **Reason (R)**.

Assertion (A) : During pregnancy the level of thyroxine is increased in the maternal blood.

Reason (R) : Pregnancy is characterised by metabolic changes in the mother.

In the light of the above statements, choose the **most appropriate answer** from the options given below :

- (1) Both **(A)** and **(R)** are correct and **(R)** is the correct explanation of **(A)**
- (2) Both **(A)** and **(R)** are correct but **(R)** is not the correct explanation of **(A)**
- (3) **(A)** is correct but **(R)** is not correct
- (4) **(A)** is not correct but **(R)** is correct

Exercise - II (Previous Year Questions)

ANSWER KEY

Question	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Answer	1	4	4	2	4	2	2	4	1	3	4	3	3	3	3
Question	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Answer	3	2	1	1	2	2	3	3	1	2	2	3	4	4	2
Question	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45
Answer	3	3	2	3	1	2	3	1	2	4	3	4	3	2	1
Question	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
Answer	3	4	1	2	1	4	2	1	1	4	4	2	2	3	3
Question	61	62													
Answer	3	1													