

QB365 Question Bank Software Study Materials

Zoology - Human Reproduction Important 2 Marks Questions With Answers (Book Back and Creative)

12th Standard

Biology

Total Marks : 40

2 Marks

20 x 2 = 40

- 1) Mention the differences between spermiogenesis and spermatogenesis

Answer :

Spermiogenesis	Spermatogenesis
It is a process of formation of sperms from immature germ cells	It is a process of transformation of a non-motile spermatid into a motile spermatozoan
Number of cells increased as each spermatogonium produces four spermatids	No change in number of cells as only one spermatid develops into a spermatozoa

- 2) At what stage of development are the gametes formed in new born male and female?

Answer : Development of female gamete is called oogenesis. Oogenesis starts at the beginning of puberty. Development of male gamete is called spermatogenesis. Spermatogenesis starts at puberty

- 3) Expand the acronyms

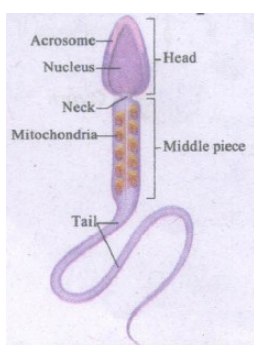
- FSH
- LH
- hCG
- hPL

Answer : (a) FSH - Follicular Stimulating Hormone
(b) LH - Lutinizing Hormone
(c) hCG - Human Chorionic Gonadotropin
(d) hPL - Human Placental Lactogen.

- 4) Placenta is an endocrine tissue. Justify

Answer : Placenta during pregnancy secretes hormones such as human chorionic gonadotrophic (hcG) estrogen, progesterone and human placenta lactogen. So, placenta is regarded as an endocrine tissue.

- 5) Draw a labeled sketch of a spermatozoan.



Answer :

- 6) What is inhibin? State its functions

Answer : In testes Sertoli cells secrete inhibin, a hormone which is involved in the negative feedback control of sperm production. (Spermatogenesis).

- 7) Define gametogenesis.

Answer : Gametogenesis is the process of formation of gametes i.e., Sperms from primary spermatocytes and ova from primary oocyte in testes and ovaries respectively. Meiosis plays the most significant role in the process of gametogenesis.

8) Name the Cells noticed in the epithelial layer of Seminiferous tubules.

Answer : (a) Sertoli cells or Nurse cells
(b) Spermatogonic cells or male germ cells.

9) What is Parturition?

Answer : Expulsion of the baby from the mother's womb is called Parturition.

10) Describe the location and shape of the uterus.

Answer : The uterus or womb is a hollow, thick-walled, muscular, highly vascular and inverted pear shaped structure lying in the pelvic cavity between the urinary bladder and rectum.

11) What is spermiation?

Answer : Sperms are finally released into the cavity of seminiferous tubules by a process called spermiation. It follows spermiogenesis.

12) What is the function of yolk sac in a human embryo?

Answer : The yolk sac forms a part of the gut and is the source of the earliest blood cells and blood vessels.

13) Name the accessory reproductive glands in female which are homologous to (a) Cowper's gland and (b) Prostate gland.

Answer : In a female, Bartholin's gland is homologous to Cowper's gland and Skene's gland is homologous to the prostate gland.

14) Define the terms

- (a) Spermiogenesis
- (b) Spermiation

Answer : (a) Spermiogenesis: Transformation of spermatids into mature sperm.
(b) Spermiation: Release of mature sperm into the lumen of seminiferous tubule

15) Describe the structure of the head of a human sperm.

- Answer :** (i) The head comprises of two parts acrosome and nucleus.
(ii) Acrosome is a small cap like point structure present at the tip of the nucleus and is formed mainly from the golgi of the spermatid.
(iii) It contains hyaluronidase, a protein enzyme, popularly known as sperm lysin which helps to penetrate the ovum fertilization.
(iv) The nucleus is flat and oval.

16) What is known as capacitation of sperm cells?

- Answer :** (i) Sperm capacitation is a biochemical event that enables the sperm to penetrate and fertilise the egg.
(ii) The sperms deposited in the reproductive tract undergo capacitation.

17) A woman suffers with irregular menstrual cycles, increased androgen levels excessive facial hair growth and with reduced fertility. Name the disorder and what does it mean.

- Answer :** (i) The disorder is PCOs (polycystic ovaries) is a complex endocrine system disorder that affects women in their reproductive years.
(ii) Polycystic means 'many cysts'. It refers to many partially formed follicles on the ovaries, which contain an egg each. But they do not grow to attain maturity or produce eggs which can be fertilized.

18) Identify the statements as true/false. Correct each false statement to make it true.

Answer : (i) Oogenesis takes place in corpus luteum.

False-Oogenesis takes place in ovary.

(ii) Spermatozoa get nutrition from sertoli cells

True

19) When are polar bodies formed in female ovary?

Answer : During the production of secondary oocyte and ovum polar bodies are formed in female ovary.

20) Define the nature of uterus

Answer : The uterus or womb is a hollow, thick-walled, muscular, highly vascular and inverted pear shaped structure lying in the pelvic cavity between the urinary bladder and rectum.