

# **BIOLOGY**

# **BOOKS - ARIHANT PRAKASHAN**

## **HUMAN REPRODUCTION**

Topic 1 Practice Questions Exams Textbook Other
Imp Questions 1 Mark Questions Exams
Questions Choose The Correct Option

1. Graafian follicle is observed in the ovary of

- A. rohu
- B. Amphioxus
- C. salamander
- D. human

### **Answer: D**



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**2.** Which organ's outer covering is tunica albuginea?

B. Urinary bladder C. Kidney D. Brain **Answer: A Watch Video Solution** 3. Fallopian tube is a part of A. ureter

A. Testis

C. oviduct
D. vas deferens
Answer: C
Watch Video Solution
<b>4.</b> Which of the following is not an accessory
sex organ?
A. Testis

B. uterus

- B. Bulbourethral gland
- C. Epididymis
- D. Seminal vesicles

#### **Answer: A**



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**5.** Which of the following is not a male secondary sexual character?

A. Beard

- B. Enlarged penis
- C. Coarse voice
- D. Increased fat in the buttocks

#### **Answer: D**



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**6.** Which of the following is not a gonadotropin?

A. FSH

B. hCG

C. LH

D. Testosterone

## **Answer: D**



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**7.** Luteinizing hormone stimulates ..... cells of the testis.



8. The prostatic fluid contains an acid called ......

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9. The swollen tip of the penis is known as .......



**10.** The inner epithelial lining of the uterus is known as ......



**11.** The Testis Determining Factor (TDF) is a polypeptide, expressed by ......gene present on the Y-chromosome.



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**12.** The factor responsible for the regression of the Mullerian duct in the human male foetus is known as ..... secreted by .... cell of the testis.



**13.** FSH stimulates the Sertoli cells to synthesise three polypeptides, namely inhibin,



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**14.** The early development of the ovarian follicles is stimulated by ..... and oestrogen,



**15.** Prostate Specific Antigens (PSAs) help in the diagnosis of ......



**16.** Define sexual dimorphism.



**17.** Which term is used for the age at which the reproductive organs become functional?



**18.** Write the name of tissue which lines the inner surface of Fallopian tube.



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**19.** The seminal fluid contains a monosaccharide as the energy-source.



20. Retention of testis in the abdominal cavity.



**21.** The canal through which the testis descends into the scrotum.



**22.** The plexus of blood capillaries that helps maintain the temperature of the testis for

normal functioning.



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23. The connective tissue capsule of the testis.



**Watch Video Solution** 

Topic 1 Practice Questions Exams Textbook Other Imp Questions 2 1 2 Marks Questions Exams Questions

1. Write a note on seminiferous tubules.



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2. Name the accessory glands in the human male reproductive system that help enhances sperm mobility and lubricate vaginal wall during mating



**3.** Explain the counter-current heat exchange mechanism in human testis.



**Watch Video Solution** 

4. What are functions of sertoli cells?



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**5.** What do you mean by accessory sex organs?

Give five examples in human male.



**6.** What is the function of the prostate gland?



**7.** What are the functions performed by the Fallopian tubes?



**8.** Write a short note on Bartholin's glands.



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9. What are the functions of epididymis?



**Watch Video Solution** 

10. Describe the functions of Vas deferens



11. Describe the functions of Vagina



**Watch Video Solution** 

Topic 1 Practice Questions Exams Textbook Other Imp Questions 3 1 2 Marks Questions Important Questions

**1.** Give an account of the human male reproductive system.



2. Draw a labelled diagram of male reproductive system.



**3.** Draw a labelled diagram of male urinogenital system of mammal.



**4.** Differentiate between granulosa and theca cells.



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5. Secondary sexual characters



**Watch Video Solution** 

**6.** How is secondary follicle different from a Graafian follicle ?



**7.** Differentiate between : Vas deferens and Vas efferentia



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Topic 1 Practice Questions Exams Textbook Other
Imp Questions 7 Marks Questions Exams
Questions

**1.** Give an account of the human female reproductive system,



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**2.** Give an account of the human male reproductive system.



**3.** Draw a neat labelled diagram of the cross-section through the human ovary (Description is not required).



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**4.** Draw a neat labelled diagram of seminiferous tubule (Description is not required).



## **Topic 1 Topic Test 1**

**1.** Stromal cells, surrounding the granulosa cells are known as ..... cells.



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2. ..... are produced by Leydig.s cells.



**3.** What is the function of the prostate gland?



**4.** Write a short note on male genitals.



**Watch Video Solution** 

5. State two main functions of ovary.



**6.** Describe the role of scrotum in production of sperms.



Watch Video Solution

**7.** Difference between:Leydig cells and Sertoli cells



**Watch Video Solution** 

**8.** Write a note on seminiferous tubules.



**9.** Draw a well-labelled diagram of human female reproductive organ.



**10.** What are the changes that occur during puberty phase in human? Describe in detail,



# Topic 2 Practice Questions Exams Textbook S Other Imp Questions 1 Mark Questions Exams Questions

**1.** From which part of spermatid is acrosome formed?

A. Nucleus

B. Mitochondria

C. Golgi bodies

D. Ribosome

Answer: C

2. Which type / types of cell division occur (s) in cells of testis at different phases of spermatogenesis?

A. Only meiotic

B. Only mitotic

C. Both (a) and (b)

D. Amitotic

Answer: C



**3.** How many spermatids are produced from a single primary spermatocyte?



**4.** How many autosomes are present in a mature human sperm ?



**5.** What is the importance of Golgi body in spermatozoa?



**Watch Video Solution** 

- 6. Find the mismatch.
- (a) Acrosome Dissolution
- (b) Tail Nutrition
- (c) Mitochondria Energy production
- (d) Centriole Cleavage



# **7.** Sertoli cells are regulated by

A. GH

B. LH

C. FSH

D. TSH

## **Answer: C**



**8.** The formation of spermatozoa (sperms) in the testes originates from

A. sperm mother cells

B. primordial germ cells

C. primary spermatocytes

D. secondary spermatocytes

## **Answer: B**



9. Centrioles are located in ...... part of the sperm,



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**10.** The secondary oocyte is arrested at ..... before fertilisation.



Watch Video Solution

11. LH acts on Sertoli cells stimulating secretion of factors which help in spermatogenesis. **Watch Video Solution 12.** How many ova will be produced by one fully grown primary oocyte? **Watch Video Solution 13.** Mention the stages involved in the process of gametogenesis. **Vatch Video Solution** 

**14.** Name the fluid-filled cavity of the ovarian follicle



**Watch Video Solution** 

15. What is the function of acrosome?



**Watch Video Solution** 

Topic 2 Practice Questions Exams Textbook S Other Imp Questions 2 1 2 Mark Questions Exams

# **Questions**

1. Write a short note on oogenesis.



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**2.** What is spermatogenesis? Name the different development stage between 'Spermatogonia' and 'Spermatozoa'.



**3.** Why are polar bodies formed during oogenesis, but not in spermatogenesis?



**Watch Video Solution** 

**4.** Explain the phase of maturation in oogenesis.



**5.** Difference between:Asexual Reproduction and Sexual Reproduction.



**6.** How many eggs are released by a human ovary in a month?



7. Write a short note on gametes



**8.** Write a short note on spermatozoa.



Topic 2 Practice Questions Exams Textbook S
Other Imp Questions 3 1 2 Mark Questions Exams
Questions

1. Write short note on spermiogenesis.



2. Differentiate between corona radiata and zona pellucida .



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**3.** Differentiate between : Spermatogenesis and oogeneis



4. Differentiate between sperm and ovum.



**Watch Video Solution** 

Topic 2 Practice Questions Exams Textbook S
Other Imp Questions 7 1 2 Mark Questions Exams
Questions

1. Describe the process of Spermatogenesis.

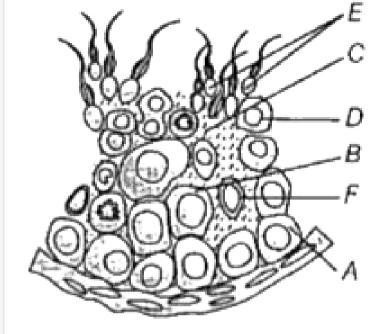


2. With the help of a schematic labelled diagram, trace the development of mature spermatozoa in a human male.



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**3.** Study the figure given below and answer the questions that follows



- (i) Pick out and name the cells that undergo spermiogenesis.
- (ii) Name A and B cells . What is the difference between them with reference to the number of chromosomes
- (iii) Pick out and name the motile cells .
- (iv) What is F cell? Mention its function.

(v) Name the structure of which the given diagram is a part.

(vi) What is labelled as D?



**Watch Video Solution** 

4. Draw neat and labelled diagram of ultrastructure of human sperm.



**1.** In a mature sperm the mitochondria are persent in .



**Watch Video Solution** 

**2.** Spermatids possess haploid chromosome number. Explain.



**3.** Why human female has fixed number of primary follicles in the ovary?



**4.** Write down the differences between spermatid and spermatozoa



**5.** Define spermiation.



**6.** Write down the similarities between spermatogenesis and oogenesis.



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7. Write a note on significance of oogenesis.



**8.** Define ovulation.



**9.** Why is the middle piece in sperm called as the powerhouse?



**10.** How are primary follicles formed?



# Topic 3 Practice Questions Exams Textbook S Other Imp Questions 1 Mark Questions Exams Questions

1. Human embryo is protected by which cavity?

A. Amniotic cavity

B. Pleural cavity

C. Peritoneal cavity

D. Neural cavity

# **Answer: A**



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**2.** The yellow coloured milk secreted by mother just after childbirth is called neonatal milk.



**Watch Video Solution** 

3. Three primary germ layers are formed during  $\underline{\text{morula}}$  stage of embryonic development.



**4.** The fusion of male and female pronuclei is called ......



**5.** While the enamel of teeth is formed from <a href="mesoderm">mesoderm</a> the dentine is formed from endoderm.



**6.** During fertilisation through which path the male pronucleus moves to meet the female pronucleus?



**Watch Video Solution** 

**7.** Which germ layer forms the nervous system?



**8.** On which day of normal menstrual cycle, ovulation occurs?



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**9.** Name the cells formed by the division of zygote.

A. Blastula

B. Blastomeres

C. Blastocoel

D. None of the above

#### **Answer: B**



# Watch Video Solution

**10.** What is the correct sequence of embryo development?

A. Gamete  $\;
ightarrow\;$  Zygote  $\;
ightarrow\;$  Morula  $\;
ightarrow\;$ 

Blastula  $\rightarrow$  Gastrula

B. Gamete  $\;
ightarrow\;$  Zygote  $\;
ightarrow\;$  Blastula  $\;
ightarrow\;$ 

Morula Gastrula

C. Gamete ightarrow Neurula ightarrow Gastrula

D. Gamete  $\,
ightarrow\,$  Neurula  $\,
ightarrow\,$  Morula

Answer: a



**Watch Video Solution** 

**11.** Which of the following hormones is not a steroid?

A. Relaxin

**B.** Oestradiol

- C. Progesterone
- D. Testosterone

## Answer: a



- **12.** Which of the following is not secreted by the acrosome?
  - A. Hyaluronidase
  - B. Corona penetrating enzyme

- C. Zonalysin
- D. Fertilizin

## Answer: d



**Watch Video Solution** 

# **13.** Blastocyst formation follows

- A. fertilisation
- B. spermatogenesis
- C. gametogenesis

D. cleavage

## Answer: d



**Watch Video Solution** 

14. Placenta secretes the hormone

A. testosterone

B. human chorionic gonadotropin

C. oxytocin

D. growth hormone

## **Answer:** b



**Watch Video Solution** 

- 15. The chief source of circulating oestrogen is
  - A. theca interna
  - B. granulosa
  - C. theca externa
  - D. stroma

Answer: a

## 16. In human fertilization occurs in:

A. vagina

B. cervix

C. uterine cavity

D. uterine tube

Answer: a



**17.** Delivery of a human baby following pregnancy is known as

A. ovulation

B. parturition

C. abortion

D. conception

**Answer: b** 



18.	Which	of	the	following	is	a	source	of
pro	gestero	ne?	)					

- A. Corpus luteum
- B. Corpus spongiosum
- C. Corpus albicans
- D. Corpus haemorrhagicum

#### Answer: a



**19.** Milk ejection from the breasts of a woman following the birth of a baby is stimulated by

A. LH

B. FSH

C. GH

D. oxytocin

Answer: d



# 20. Mammalian placenta is formed from

- A. yolk sac
- B. chorion allantois
- C. chorion
- D. amnion

### **Answer: B**



**21.** The covering of egg is called .......



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**22.** The primitive gut that forms during gastrulation is called .........



**23.** During fertilisation, the sperm's acrosome releases ......



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**24.** The menstrual cycle spans ..... days and the ovulation occurs on the day ......



**25.** Penetration of spermatozoan into the egg at fertilisation triggers metaphase-II in the secondary oocyte. This phenomenon is known as ......



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**26.** Following the failure of fertilisation, the corpus luteum regresses into a structure called ......



**27.** The layers of cuboidal follicular cells surrounding the primary oocyte constitutes



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**28.** Stromal cells, surrounding the granulosa cells are known as ..... cells.



**29.** The non-cellular layer surrounding the primary oocyte is known as ......



**30.** Corpus luteum is the main source of oestrogen and ......



**31.** What is the function of amniotic fluid for the foetus?



**32.** What do you mean by endometrium. of the uterus?



**33.** What is the process of entry of spermatozoa into an ovum and the fusion of their nuclei and cytoplasm called?



**34.** What is the other name of trophoblast cells lying over the embryonic disc?



**Watch Video Solution** 

**35.** What is capacitation with reference to sperm?



**36.** The tissue formed by the apposition of both the maternal and foetal tissues during pregnancy.



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**37.** The fertilizing-antifertilizin reaction that stops the march of a large number of sperms towards the egg.



**38.** The mucopolysaccharide layer surrounding a primary ovarian follicle is \_\_\_\_.



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**39.** The regressing follicles and the act of regression.



**40.** The uterine layer that is sloughed off during menstrual cycle.



**Watch Video Solution** 

**41.** The arteries of the uterine wall undergo disintegration during the menstrual cycle.



**42.** The height of LH secretion, 16-26 hours before ovulation.



**Watch Video Solution** 

**43.** The modified sweat glands in the female that serve as the source of food for neonatal babies.



**44.** The penetration of the spermatozoa into the egg sets in a reaction in the acrosome, which results in the formation of fertilisation membrane.

A. True

B. False

C.

D.

**Answer:** 



Water Video Solution

**45.** Explain LH surge.



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Topic 3 Practice Questions Exams Textbook S
Other Imp Questions 2 1 2 Mark Questions Exams
Questions

1. What are gestation and parturition?



2. What is fertilization? In man, where does it take place?



**Watch Video Solution** 

**3.** What are the functions of placenta?



**Watch Video Solution** 

4. Write a short note on placenta.



**5.** Draw a labelled diagram of a Graafian follicle.



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**6.** Enlist the hormones regulating menstrual cycle and mention the role of each.



**7.** What term is used for the milk produced immediately after parturition? Why is it important?



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8. Write short notes on: Implantation



**9.** Where is morula formed in humans? Explain the process of its development from zygote.



**Watch Video Solution** 

**10.** What is the role of acrosome in fertilisation?



**11.** State the different events of reproduction occurring in humans.



**Watch Video Solution** 

**12.** What are the three germinal layers in an embryo? Write the name of few structures developed from these layers.



# Topic 3 Practice Questions Exams Textbook S Other Imp Questions 3 1 2 Mark Questions Exams Questions

**1.** Differentiate between : Corpus luteum and corpus albicans.



**Watch Video Solution** 

2. Differentiate between amnion and chorion.



**3.** Discuss the process of parturition in humans.



**Watch Video Solution** 

**4.** Why parturition is called a neuroendocrine mechanism?



**Watch Video Solution** 

5. Placenta acts as an endocrine gland. Explain.





**6.** How is the mammary gland hormonally regulated?



**Watch Video Solution** 

7. Distinguish between fertilizin an antifertilizin.



8. Differentiate between the blastulation and the gastrulation.



**Watch Video Solution** 

**9.** Differentiate between cleavage and mitosis.



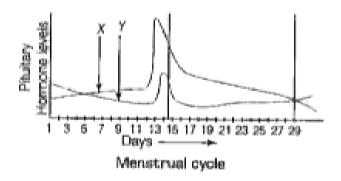
**Watch Video Solution** 

10. State the difference between follicular and luteal phase of menstrual cycle.



Topic 3 Practice Questions Exams Textbook S
Other Imp Questions 7 Mark Questions Exams
Questions

**1.** Study the graph given below and answer the questions that follows .



(i) Name the hormones X and Y.

(ii) Identify the ovarian phases during menstrual cycle.

- (a) 5th day to 12th day of the cycle
- (b) 14th day of the cycle
- (c) 16th day to 25th day of the cycle

(iii) Explain the ovarian events (a), (b) and (c) under the influence of hormones X and Y.

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2. What is menstural cycle? Describe the cycle in human with a reference to cycle changes in

the ovary and uterine endometrium.



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**3.** With a labelled diagram show the transport of ovum, fertilisation and passage of growing embryo through Fallopian tube till it gets implanted in the uterus.



**1.** Name the part of the female genital tract where foetus is formed.



**Watch Video Solution** 

**2.** Which of the following is not an extraembryonic membrane?

A. Amnion

B. Yolk sac

C. Blastocyst

D. Allantois

**Answer: C** 



**Watch Video Solution** 

**3.** Which type of cleavage occurs in the zygote of human female ?



**4.** What do you mean by insemination and fertilisation?



**Watch Video Solution** 

**5.** Write the main funcțions of extraembryonic membranes.



**6.** Give an account of the formation of blastocyst in human species.



**Watch Video Solution** 

# **Chapter Test**

**1.** During oogenesis, the second maturation division takes place in ......



**2.** Which part of the sperm enters into the egg during fertilization ?



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**3.** Degenerated corpus luteum is called \_\_\_\_.



**Watch Video Solution** 

4. Which hormone is secreted by placenta?



**5.** Give the name of membrane that covers the vaginal opening in the virgin.



**Watch Video Solution** 

**6.** Name the extraembryonic membranes.



<b>7.</b> During	which	process	the	polar	bodies	are
formed?						

- A. Gametogenesis
- B. Spermatogenesis
- C. Oogenesis
- D. Spermatolysis

## **Answer:**



**8.** Extraembryonic membrane involved in formation of placenta for metabolic exchange between mother and foetus is

- A. amnion
- B. yolk sac
- C. chorion
- D. allantois

### **Answer:**



**9.** Which hormone is needed to make immature sperm, mature?

- A. FSH
- B. GH
- C. LH
- D. ICHS

### **Answer:**



**10.** Discuss the role of hormones in spermatogenesis.



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**11.** Name the accessory glands in female reproductive system and their significance.



Watch Video Solution

**12.** Draw the structure of ovum.



**13.** What are the basic features of Sexual Reproduction?



**14.** Placenta acts as an endocrine gland. Explain.



**15.** Draw a neat and labelled diagram of sperm and state the significance of anatomical structure of its head piece.



**Watch Video Solution** 

**16.** Give an account of the secondary sex organs of human male reproductive system



17. Proliferative phase of menstrual cycle



**Watch Video Solution** 

**18.** Starting with the zygote, draw the diagrams of the different stages of embryo developments in the dicot.

