

## **BIOLOGY**

# BOOKS - MODERN PUBLISHERS BIOLOGY (HINGLISH)

# HUMAN REPRODUCTION

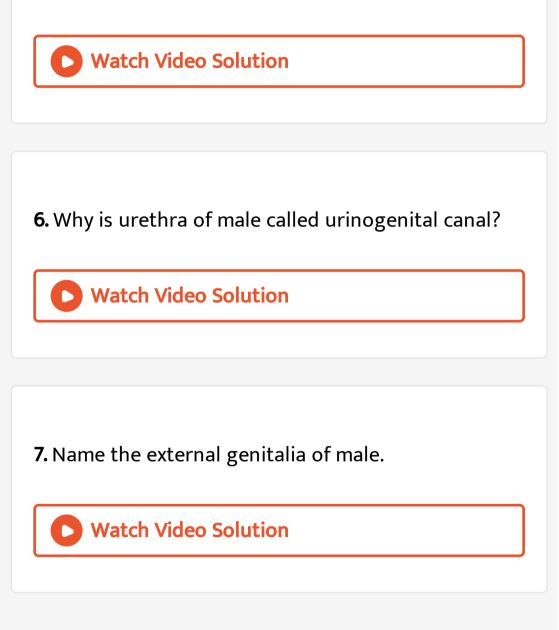
Practice Problem Reproductive System

**1.** Give the location of testes in man.

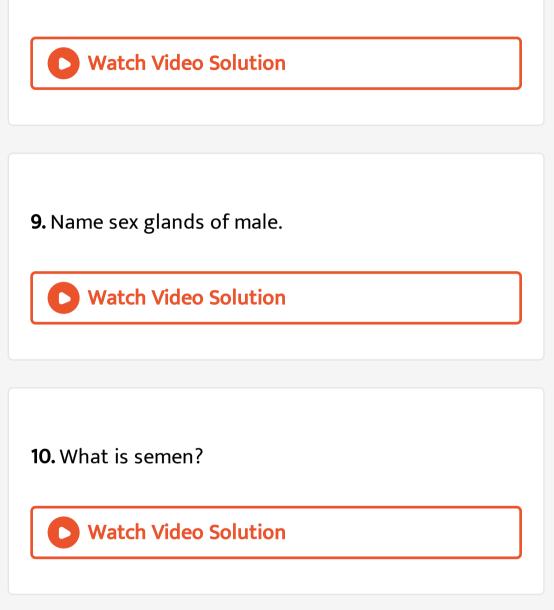
2. What is the function of scrotal sacs?

Watch Video Solution
<b>3.</b> Name the sperm-producing structures of the testes.
<b>Vatch Video Solution</b>
<b>4.</b> Name the endocrine cells of the testes.

**5.** Name three parts of epididymis.



8. What is glans penis?



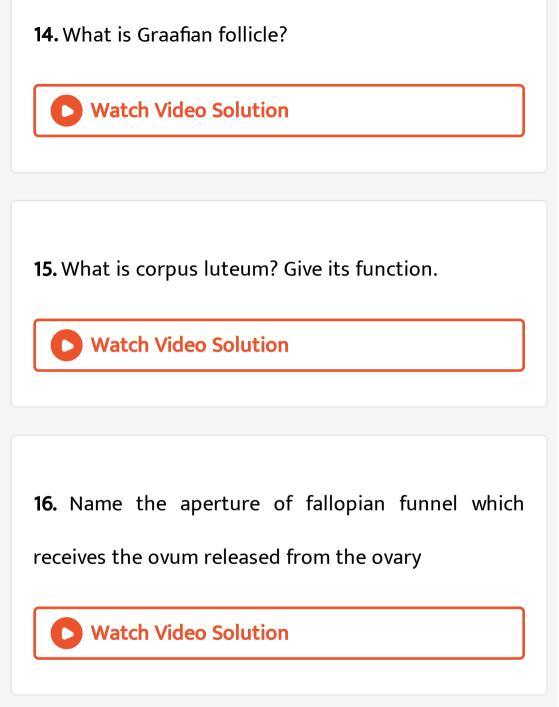
**11.** Define puberty.

Watch Video Solution

**12.** Name the hormone regulating puberty in male and female.

Watch Video Solution

**13.** Define insemination



17. Which part of female genital tract acts as womb?

Watch Video Solution
<b>18.</b> Name the innermost glandular epithelium of uterus.
<b>Watch Video Solution</b>

**19.** Name the external genitalia of female.

20. Which structure of female reproductive system is

homologous to penis of male?



#### Practice Problem Gametogenesis And Gamets

1. Name two types of gametogenesis.

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2. Name two mammals having abdominal testes.

**3.** List three phases of gametogenesis.



4. During which phase, spermatogonium changes

into primary spermatocyte?

Watch Video Solution

5. Name the phase of spermatogenesis during which

meiosis occurs.

6. Define spermiogenesis.



#### 7. What is nebenkern?

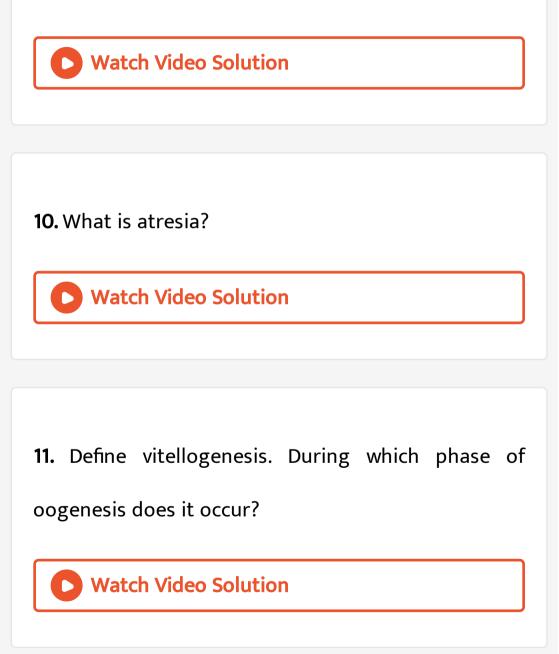


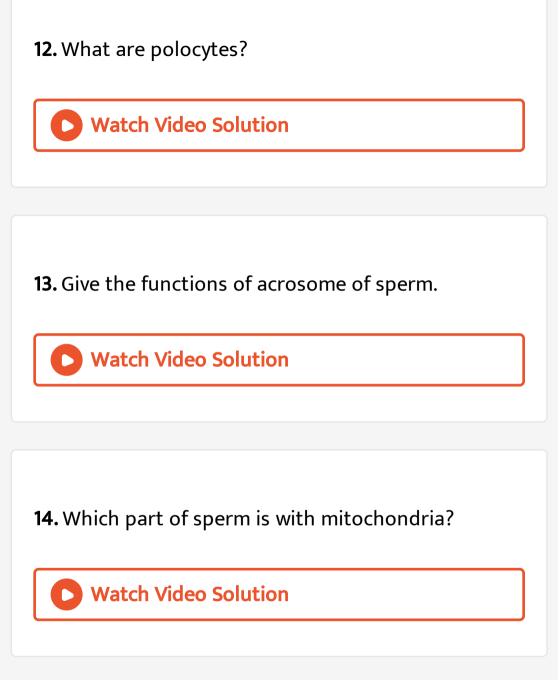
#### 8. Which cellular structure of spermatid forms the

#### acrosome?



9. Give the function of sertoli cells.

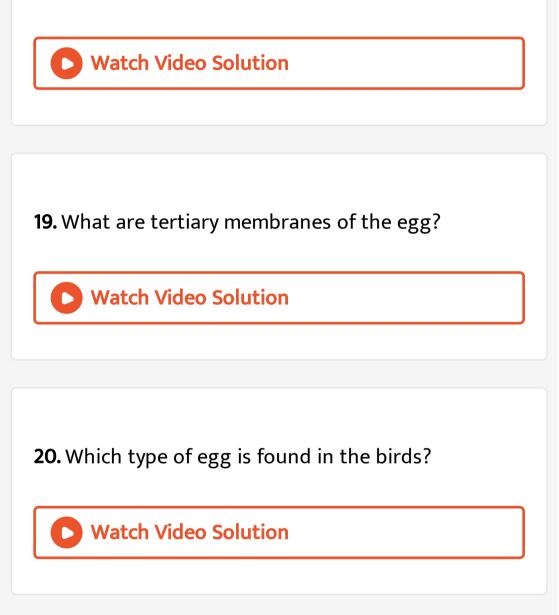




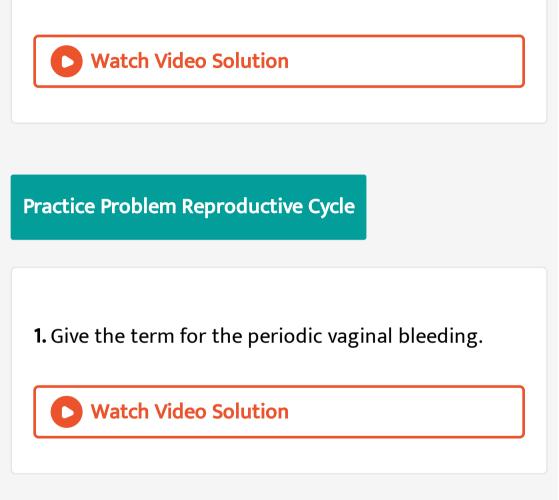
**15.** Give the viability period of human sperm.

<b>Vatch Video Solution</b>
<b>16.</b> What is nature of ovum of human female?
<b>Watch Video Solution</b>
<b>17.</b> Name the egg envelopes.
<b>Vatch Video Solution</b>

18. Which animal has amoeboid sperms?



**21.** What is centrolecithal egg?

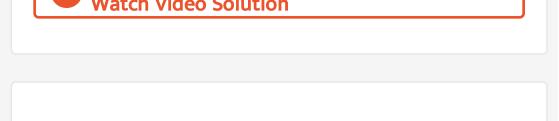


2. Name the four phases of menstrual cycle of human

- - **C** - **L** - **L** - -

female.

\ A / \_ L \_ L \_ \ / L \_ L



3. On which day, does ovulation occur in human

female?



**4.** Which hormone controls the ovulation?

Watch Video Solution

5. Name the longest phase of menstrual cycle.

6. Why is luteal phase also called secretory phase?

<b>Vatch Video Solution</b>	
<b>Watch Video Solution</b>	

7. What is the main cause of menstruation in the

human female?

**Watch Video Solution** 

8. Define menopause.

9. During which period, does menopause generally

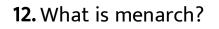
occur in human female?

<b>Watch Video Sol</b>	ution	

**10.** What is heat period?

Watch Video Solution

**11.** Name two animals showing oestrous cycle?





#### Practice Problem Embryonic Development

1. Define embryology. Where does it occur?

Watch Video Solution

2. Why is fertilization also called syngamy?



3. What are fertilizin molecules?

<b>Watch Video Solution</b>
<b>4.</b> Give the significance of fertilizin - antifertilizin reaction.
<b>Vatch Video Solution</b>

5. Name the sperm lysin secreted by acrosome of

sperm.

6. What is significance of formation of fertilization membrane? Watch Video Solution 7. Define amphimixis Watch Video Solution

8. Name the embryonic phase which changes zygote

to blastula

9. Why is cleavage called a fractionating process?

	<b>W</b> a	ıtch Vi	deo Sol	ution		
_	Which avage?		r deterr	nines the pa	ttern and s	speed of
	<b>D</b> Wa	itch Vi	deo Sol	ution		
11.	Give	one	major	difference	between	mitotic

divisions of cleavage and normal mitosis.

**12.** Which type of cleavage is found in human zygote?

<b>Watch Video Solution</b>
<b>13.</b> What is function of trophoblast of blastocyst?
<b>Watch Video Solution</b>
<b>14.</b> Define implantation.
Watch Video Solution

15. On which day after fertilization, does implantation

occur?

16. Name two hormones which control the

implantation

Watch Video Solution

17. Gastrulation

**18.** Name three primary germ layers.

Watch Video Solution **19.** From which embryonic germ layer, central nervous system is developed? Watch Video Solution

20. Which primary germ layer forms liver, pancreas,

etc.?

21. Which type of cleavage occurs in the zygote of

reptiles, birds and prototherians?



**22.** Give two groups of animals showing spiral cleavage.

Watch Video Solution

Practice Problem Extra Embryonic Membranes And Placentation **1.** Name the extra-embryonic membranes.

<b>Watch Video Solution</b>
2. Which extra-embryonic membrane acts as extra-
embryonic gut?
<b>Vatch Video Solution</b>

3. Which extra-embryonic membrane is excretory in

function and is analogous to the kidneys?

4. Which embryonic membrane always participates in

placenta formation?



5. Which type of placenta is found in human female?

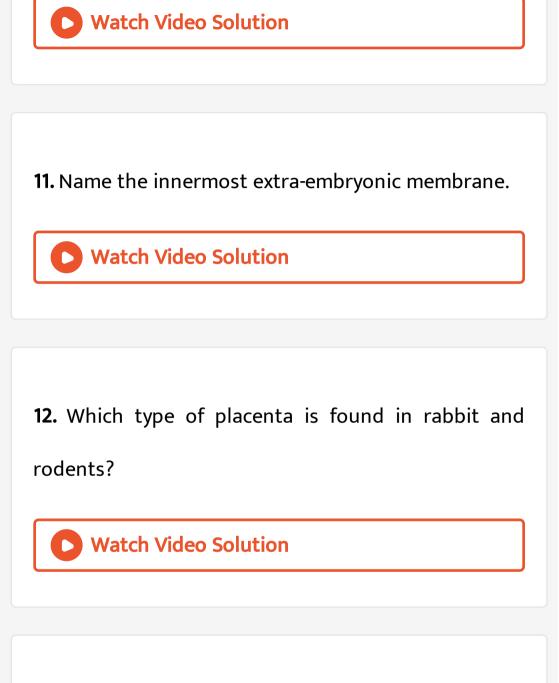
Watch Video Solution

6. What is decidua?

### 7. Which hormone is secreted by human placenta?

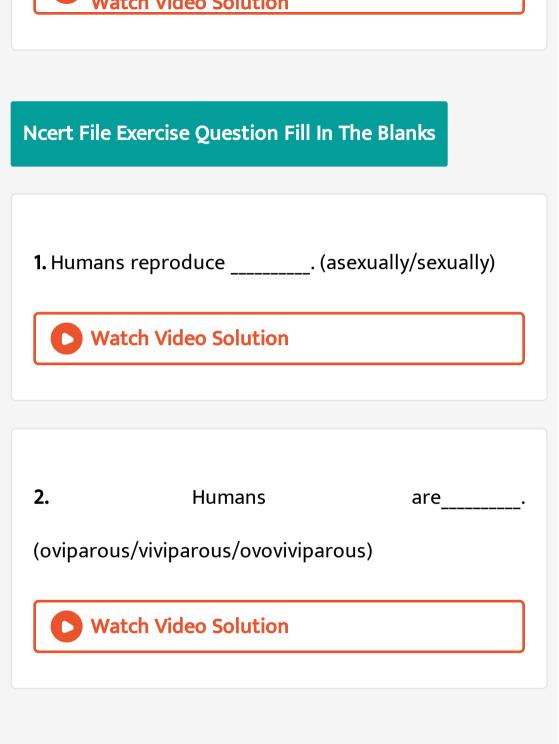
<b>Watch Video Solution</b>
<b>8.</b> Give the gestation period of human female.
<b>Watch Video Solution</b>
<b>9.</b> Which two hormones control the parturition?
<b>Vatch Video Solution</b>

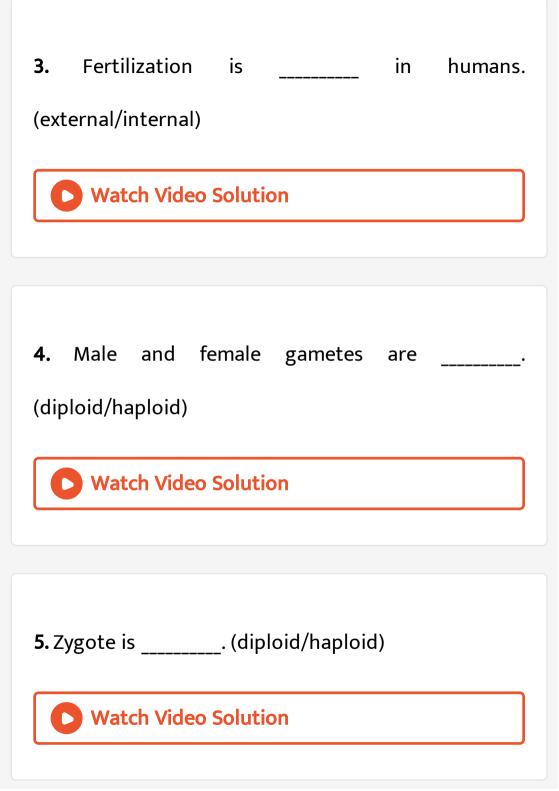
**10.** Why is yolk sac absent in human female?



**13.** Name the animal having zonary placenta.

Match Midae Colution





6. The process of release of the ovum from a mature

follicle is called\_\_\_\_\_.

**Watch Video Solution** 

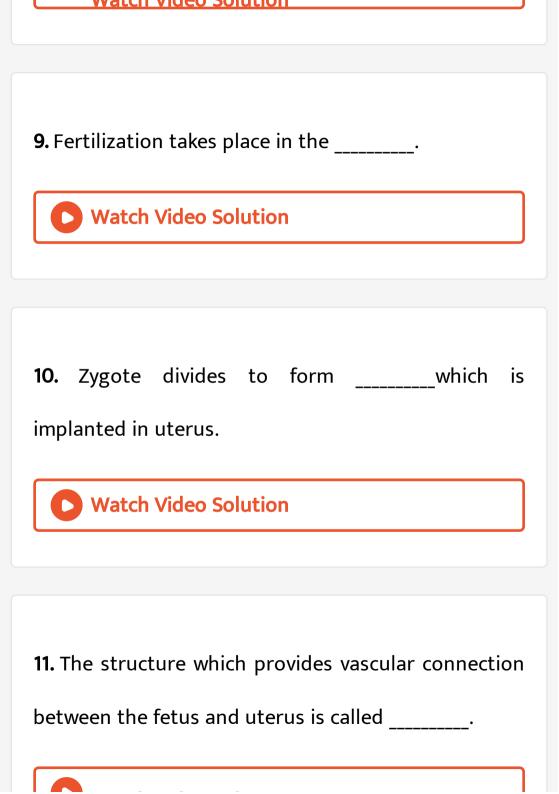
7. Ovulation is induced by a hormone called the

Watch Video Solution

8. The fusion of the male and the female gametes is

called \_\_\_\_\_.

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**Ncert File Exercise Question** 

**1.** Draw a labeled diagram of male reproductive system.

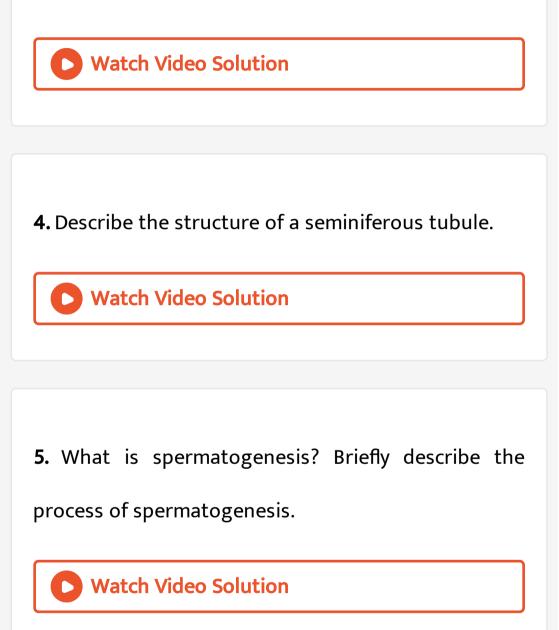
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2. Draw a labeled diagram of female reproductive

system. Answer

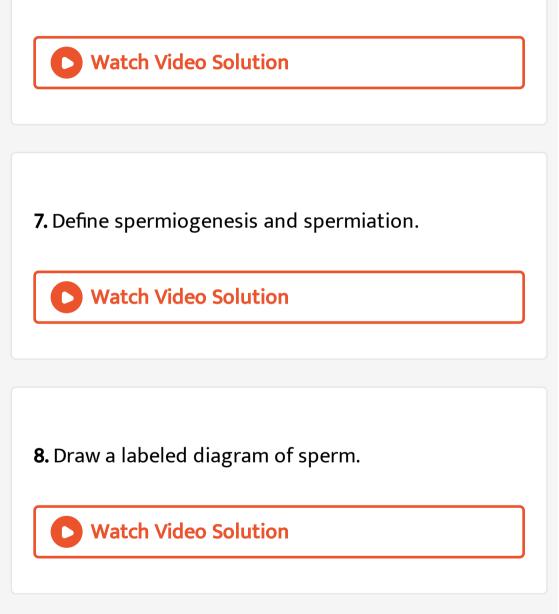


3. Write two major functions each of testis and ovary.



6. Name the hormones involved in regulation of

spermatogenesis.



9. What are the major components of seminal plasma?
Watch Video Solution

**10.** What is oogenesis? Give a brief account of oogenesis.

Watch Video Solution

11. What are the major functions of male accessory

ducts and glands?



12. Draw a labeled diagram of a section through

ovary.



**13.** Draw a labeled diagram of a Graafian Follicle?

Watch Video Solution

**14.** Name the functions of the following.

(a) Corpus luteum

(b) Endometrium (c) Acrosome

(d) Sperm tail

(e) Fimbriae

**Watch Video Solution** 

15. What is menstrual cycle ? Name the hormones

that regulate menstrual cycle ?

Watch Video Solution

16. what is parturition ? Which hormones are involved

in induction of parturition ?

MARTINE MERINE CONTRACT



17. In our society a woman is often blamed for not

bearing male child. Do you thing it is right? Justify.

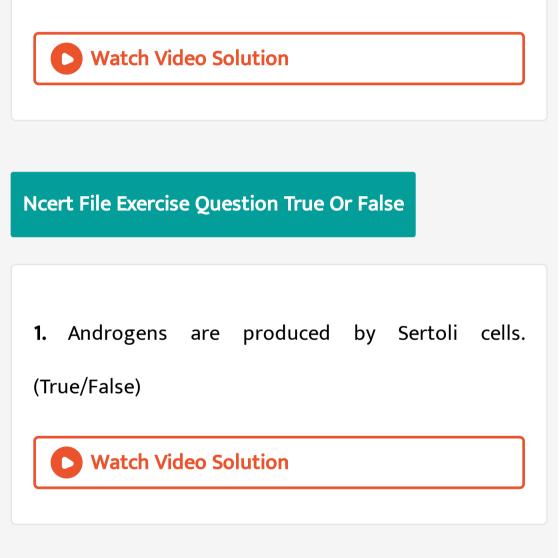


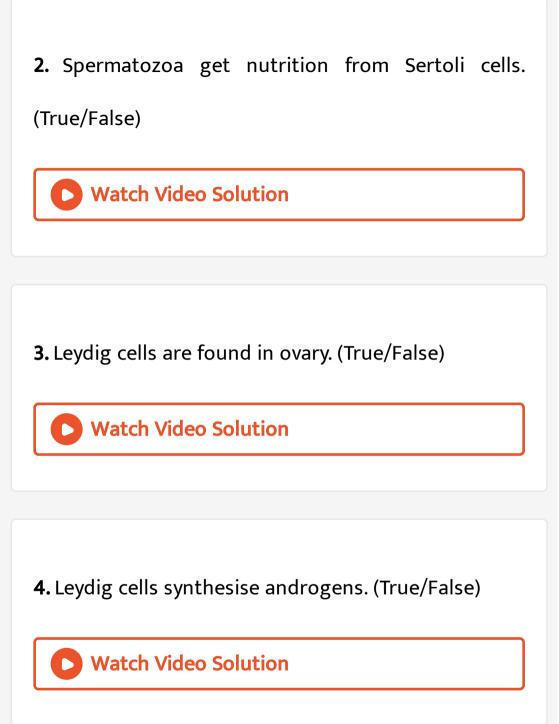
**18.** How many eggs are released by a human ovary in a month ? How many eggs to do think would have been released , if the mother gave birth to identical twins ? Would you answer change if the twins born were fraternal ?

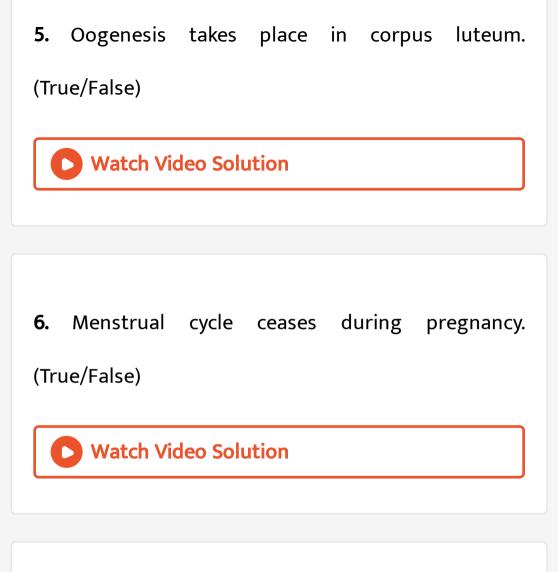
Watch Video Solution

19. How many eggs do you think were released by the

ovary of a female dog which gave birth to 6 puppies?







7. The presence or absence of hymen is not a reliable

indicator of virginity or sexual experience. (True/false)



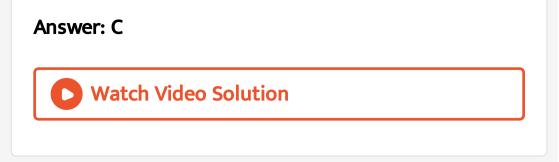
Ncert File Exemplar Problems A Multiple Choice Question

- 1. Choose the incorrect statement from the following
  - A. In birds and mammals internal fertilisation takes place
  - B. Colostrum contains antibodies and nutrients
  - C. Polyspermy is prevented by the chemical

changes in the egg surface

D. In the human female implantation occurs

almost seven days after fertilisation



**2.** Identify the wrong statements from the following:

A. High levels of estrogen triggers the ovulatory surge.

B. Oogonial cells start to proliferate and give rise

to functional ova in regular cycles from puberty

onwards

C. Sperms released from seminiferous tubules are

poorly motile/non-motile.

D. Progesterone level is high during the post-

ovulatory phase of menstrual cycle

Answer: B

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**3.** Spot the odd one out from the following structures with reference to the male reproductive system.

A. Rete testis

B. Epididymis

C. Vasa efferentia

D. Isthmus

Answer: D

**Watch Video Solution** 

**4.** Seminal plasma, the fluid part of semen, is contributed by

(i) seminal vesicle (ii) prostate

(iii) urethra (iv) bulbourethral gland

A. (i) and (ii)

B. (i), (ii) and (iv)

C. (ii), (iii) and (iv)

D. (i) and (iv)

Answer: B

**Watch Video Solution** 

5. Spermiation is the process of the release of sperms

from

A. Seminiferous tubules

B. Vas deferens

C. Epididymis

D. Prostate gland

Answer: A

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**6.** Mature Graffian follicle is generally present in the ovary of a healthy human female around.

A. 5-8 day of menstrual cycle

B. 11-17 day of menstrual cycle

C. 18-23 day of menstrual cycle

D. 24–28 day of menstrual cycle

### Answer: B

# **Watch Video Solution**

7. Acrosomal reaction of the sperm occurs due to

A. Its contact with zona pellucida of the ova

B. Reactions within the uterine environment of

the female

C. Reactions within the epididymal environment

of the male

D. Androgens produced in the uterus

## Answer: A

**Watch Video Solution** 

8. Which one of the following is not a male accessory

gland?

A. Seminal vesicle

B. Ampulla

C. Prostate

D. Bulbourethral gland

#### Answer: B



**9.** The immature male germ cells undergo division to produce sperms by the process of spermatogenesis. Choose the correct one with reference to above.

A. Spermatogonia have 46 chromosomes and

always undergo meiotic cell division

B. Primary spermatocytes divide by mitotic cell division

C. Secondary spermatocytes have 23

chromosomes and undergo second meiotic

division

D. Spermatozoa are transformed into spermatids

Answer: C

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10. Which among the following has 23 chromosomes?

A. Spermatogonia

B. Zygote

C. Secondary oocyte

D. Oögonia

#### Answer: C

**Watch Video Solution** 

11. Which of the following hormones is not secreted

by human placenta?

A. hCG

**B. Estrogens** 

C. Progesterone

D. LH

#### Answer: D

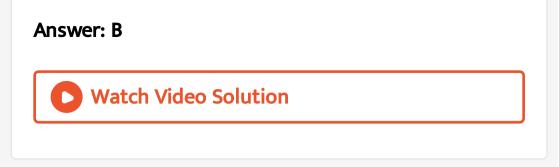
**Watch Video Solution** 

12. The vas deferens receives duct from the seminal

vesicle and opens into urethra as

A. Epididymis

- B. Ejaculatory duct
- C. Efferent ductule
- D. Ureter



- 13. Urethral meatus refers to the
  - A. Urinogenital duct
  - B. Opening of vas deferens into urethra
  - C. External opening of the urinogenital duct
  - D. Muscles surrounding the urinogenital duct

Answer: C



14. Mourla is a developmental stage

A. Between the zygote and blastocyst

B. Between the blastocyst and gastrula

C. After the implantation

D. Between implantation and parturition

**Answer: A** 



15. The membranous cover of the ovum at ovulation

is

A. Corona radiata

B. Zona radiata

C. Zona pellucida

D. Chorion

Answer: A



**16.** Identify the odd one from the following.

A. Labia minora

B. Fimbriae

C. Infundibulum

D. Isthmus

Answer: A

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Ncert File Exemplar Problems B Very Short Answer Type Question 1. Given below are events in human reproduction.

Write them in correct sequential order.

Insemination, gemetogenesis, fertilisation,

parturition, gestation, implanation.

Watch Video Solution

2. The path of sperm transport is given below. Provide

the missing steps in blanks boxes :



View Text Solution

3. What is the role of cervix in the human female reproductive system?
Watch Video Solution

4. Why are menstrual cycles absent during pregnancy?
Watch Video Solution

**5.** Female reproductive organs and associated functions are given below in column A and B. Fill the

blank boxes:





**6.** From where the parturition signals aries-mother or foetus? Mention the main hormone involved in parturition.

Watch Video Solution

**7.** What is the significance of epididymis in male fertility?



**8.** Given the names and functions of the hormones involved in the process of spermatogenesis. Write the names of the endocrine glands from where they are released.

> Watch Video Solution

**9.** The mother germ cells are transformed into a mature follicle through series of steps. Provide the missing steps in the blank boxes.





**10.** During reproduction the chromosome nmber (2n) reduces to half (n) in the gametes and again the original number (2n) is restored in the offspring. What are the processes through which these events take place?



11. What is the difference between a primary oocyte

and a secondary oocyte?

Watch Video Solution

12. What is the significance of ampullary-isthmic junction in the female reproductive tract?Watch Video Solution

13. How does zona pelluction of ovum help in

preventing polyspermy?

Watch Video Solution

**14.** Mention the importance of LH surge during menstrual cycle.



15. Which type of cell division forms spermatids from

the secondary spermatocytes?

Watch Video Solution

Ncert File Exemplar Problems C Short Answer Type Question

**1.** A human female experiences two major changes menrache and menopause during her life. Mention the significance of both the events.



2. (a) How many spermatozoa are formed from one secondary spermatocyte?

(b) Where does the first cleavage division of zygote

take place?

Watch Video Solution

**3.** Corpus luteum in pregnancy has a long life. However if fertilisation does not take place, it remains active only for 10-12 days. Explain.

Watch Video Solution

4. What is foetal ejection reflex? Explain how it leads

to parturition?



5. Except endocrine function, what are the other

functions of placenta.

Watch Video Solution

**6.** Why doctors recommend breast feeding during initial period of infant growth?



7. What are the events that take place in the ovary and uterus during follicular phase of the menstrual cycle.



**8.** Given below is a flow chart showing ovarian changes during menstrual cycle. Fill in the spaces giving the name of hormones responsible for the events shown:



**9.** Give a schematic labelled diagram to represent oogenesis ( without descriptions ).

**Watch Video Solution** 

10. What are the changes in the oogonia during the

transition of a primary follicle to Graafian follicle?



Ncert File Exemplar Problems D Long Answer Type Question  What role does pituitary gonadotrophins play during follicular and ovulatory phases of menstrual cycle ? Explain the shifts in steroidal secetions .

Watch Video Solution

2. Meiotic division during oogenesis is different from

that in spermatogenesis. Explain how and why?

**Watch Video Solution** 

3. The zygote passes through several developmental

stages till implantation. Describe each stage briefly

with suitable diagrams.

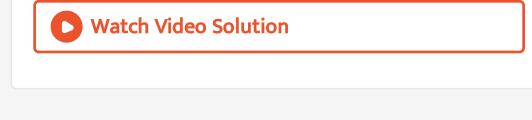


**4.** Draw a neat diagram of the female reproductive systen and label the parts associated with the following (a) production of gamete, (b) site of fertilisation (c) site of implantation and (d) birth canal.



5. Whit a suitable diagram, describe the organisation

of mammary gland.



High Order Thinking Skills And Brain Twisting Very Short Answer Question

1. Give the location of testes in human male. Give

reason.

Watch Video Solution

2. Give the term for the change of a spermatid into

sperm.



**3.** Name the organs acting as fertilization canal and birth canal.

**4.** give the term used for the period between

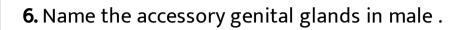
fertillzation and birth of young one.

Watch Video Solution

Watch Video Solution



Watch Video Solution





7. What is cortical reaction? Give its significance.

Watch Video Solution

**8.** Where does fertilization normally take place in human female ?



9. On which day of the normal menstrual cycle, ovulation occurs? Watch Video Solution **10.** What is trigger for parturition ? Watch Video Solution

High Order Thinking Skills And Brain Twisting Short Answer Question Fertilization performs two functions. What are these?
 Watch Video Solution

2. Name the sperm lysin. Which organelle secretes it?

What is its function?

> Watch Video Solution

3. Why is the cleavage in mammals referred as simple

holoblastie?



**4.** Human egg has an animal pole. Describe two events that take place at this pole?

**Watch Video Solution** 

5. by which structures are the testes suspended in

the scrotum?



**6.** What forms the corpus luteum ? Name the hormones secreted by it.



7. What are Leydig cells ? Write down their functions.

Watch Video Solution

8. How is polyespermy prevented?

Watch Video Solution

**9.** Explain why the first half of the menstrual cycle is called the proliferative phase as well as the follicular phase.

**10.** Trace the formation of ovum from oogonium.

Watch Video Solution

Watch Video Solution

**11.** Trace the formation of spermatozon from spermatogonium.



**12.** Give a diagram of T.S of a part of a seminiferous tubule of testis of an aduit human male .Label its parts .



13. Briefly mention the changes in the human ovary

which take place under the influence of FSH.



**14.** What is blastocoel in mamalian development ? What does it sighify from the point of view of phylogeny ?

> Watch Video Solution

**15.** Describe the chemical events of fertilization of mammalian egg.

**Watch Video Solution** 

High Order Thinking Skills And Brain Twisting Long Answer Question 1. Describe the hormonal control of reproductive

system in human male.

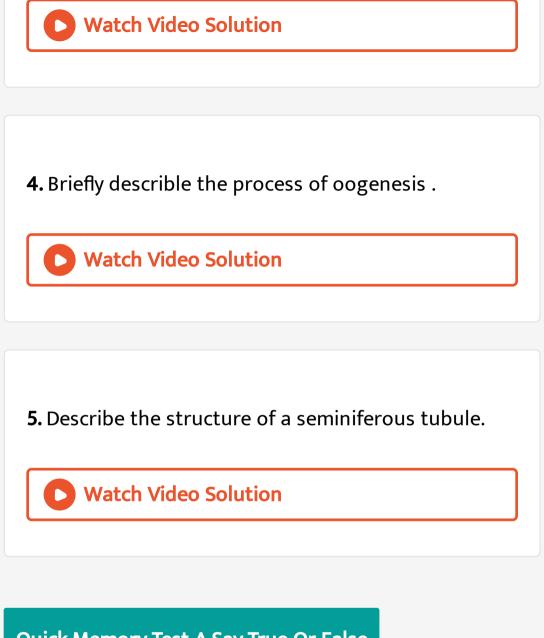


2. Describe oogenesis in human female. What promotes completion of second meiotic division in oogenesis?

Watch Video Solution

3. where does oogenesis occur in human ? Describe

the stage of the process.



Quick Memory Test A Say True Or False

1. Comment on the statement 'All mammals are viviparous

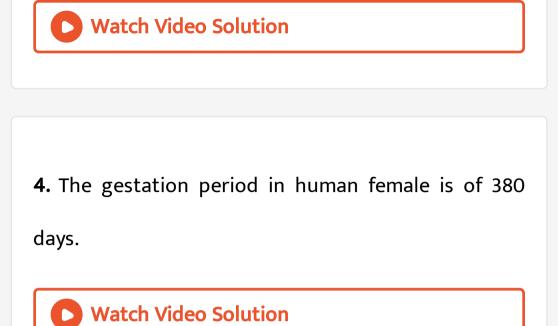
 • Watch Video Solution

2. The sperm lysin secreted by acrosome of sperm is

hyaluronic acid.

Watch Video Solution

**3.** Post-natal period of development occurs after hatching or birth while pre-natal period of development occurs before hatching or birth.

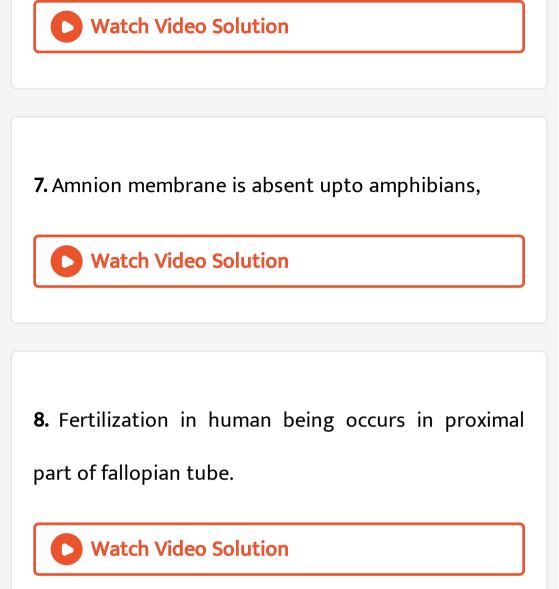


5. Process of giving birth to a young one is called

parturition

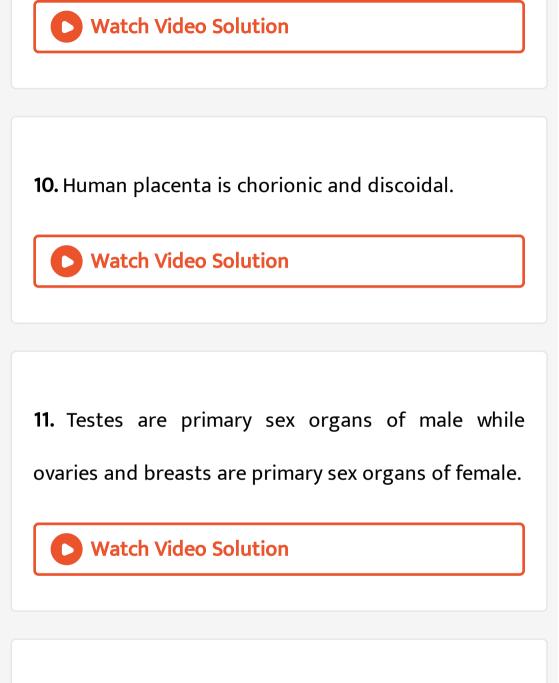
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**6.** Fertilizins are secreted by immature eggs.



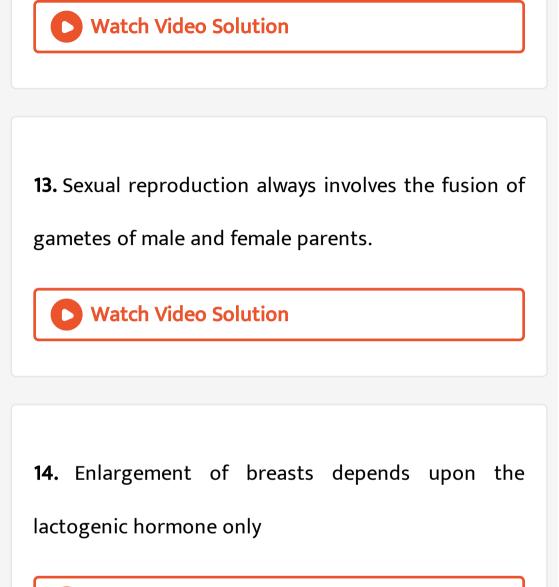
9. The expulsion of completely developed foetus from

the uterus is called gestation



12. Failure of testes to descend into scrotal sacs

produces sterility.





**15.** First half of menstrual cycle is controlled by progesterone while second half of it is controlled by estrogens.

Watch Video Solution

**16.** Gonadotrophins are secreted by posterior lobe of pituitary to stimulate the release of gonadial hormones.

Watch Video Solution

**17.** Proliferative phase of menstrual cycle is characterized by increased secretion of estrogens while luteal phase is charecterized by increased secretion of progesterone

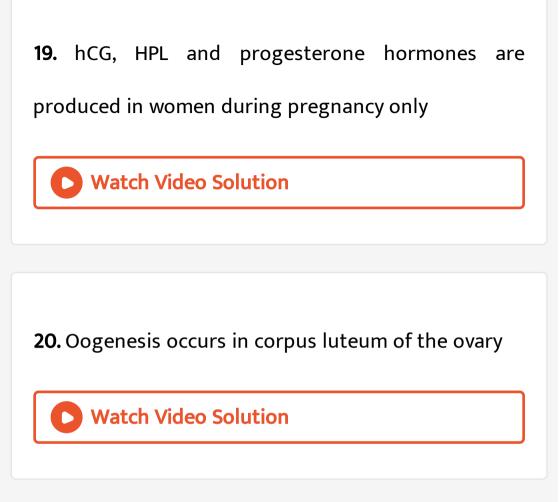


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18. Ampulla is associated with follopian tube, while

clitoris is associated with vulva of female.





21. A condition when the organism lays eggs is called

viviparous.

Watch Video Solution

1. The period of development before hatching or

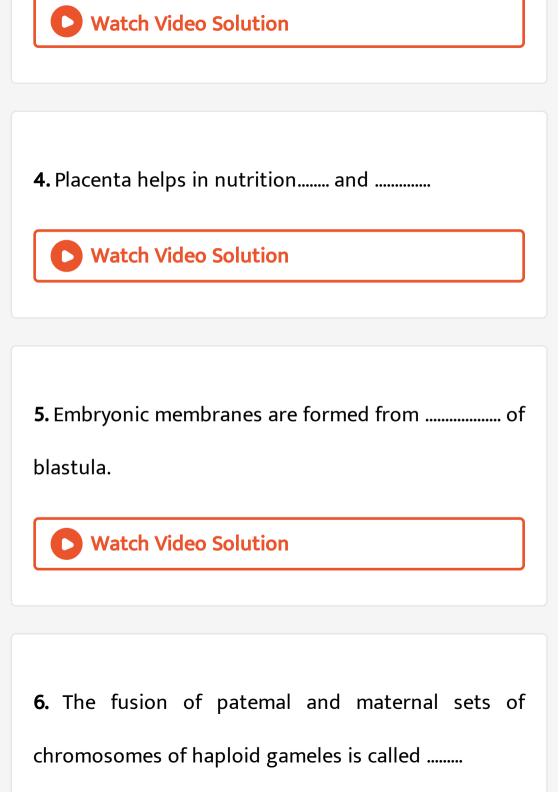
birth is called ......

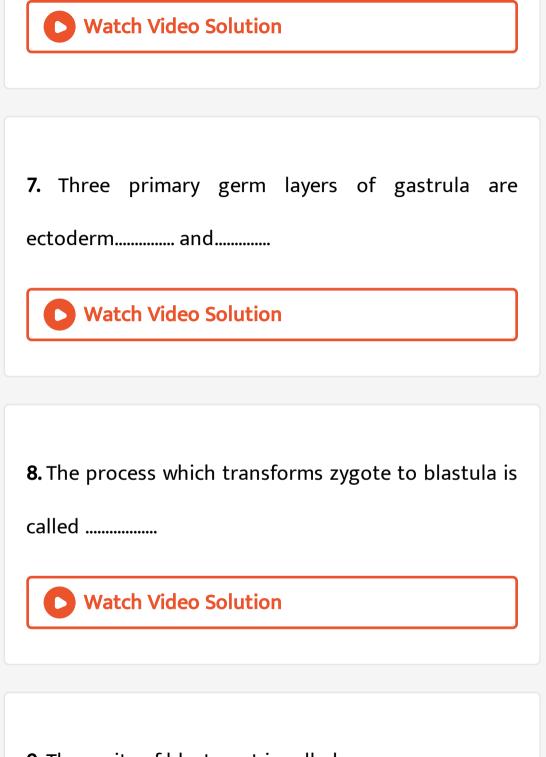
**Watch Video Solution** 

2. The ..... is the cavity of gastrula.

Watch Video Solution

**3.** The period between the fertilization and birth is called .....





9. The cavity of blastocyst is called .....



10. The..... is the sexual intercourse between male

and female sexes.



11. ..... is the process by which the sperm prepares

itself to fertilize the ovum

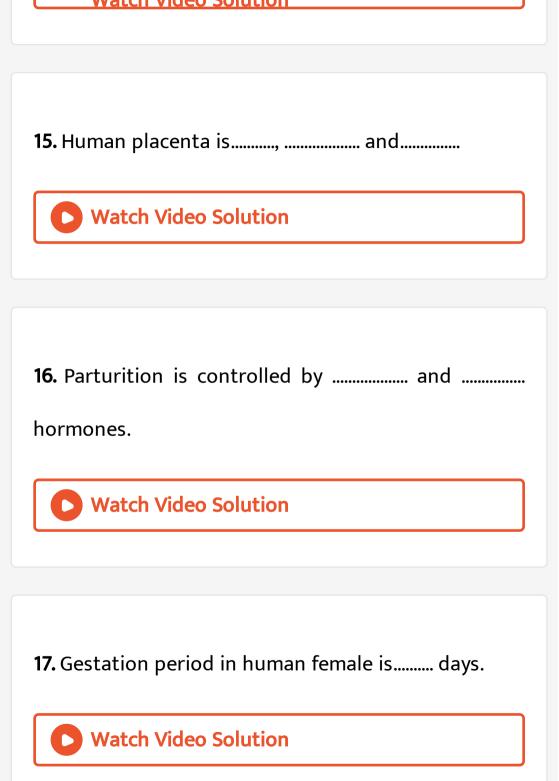


12. The archenteron of gastrula is lined by ......
(primary germ layer).
Watch Video Solution
13. ...... acts as extra-embryonic gut while......

acts as extra-embryonic kidney,

Watch Video Solution

**14.** Internal ear is ..... in origin while middle ear is ..... in origin.



**18.** A secondary oocyte has a...... chromosome number while a fertilized ovum has ...........

**Watch Video Solution** 

**19.** Spermatozoa are produced in the ...... of testes while the ova are formed in the ..... of the

ovaries.



20. Vasa efferentia conduct the sperms from the ......

while vas deferens conducts the sperms from the .....

<b>Vatch Video Solution</b>
<b>21.</b> Corpus luteum secretes While Leydig's cells
secrete
<b>Vatch Video Solution</b>

**22.** Growth of the Graafian follicle is stimulated by ...... of the pituitary while ovulation is stimulated mainly by ...... of the same gland.



## **23.** The secretory phase of the menstrual cycle is also

called the ..... because it is controlled by the

hormone .....

Watch Video Solution

**24.** Uterine glands grow and elongate in the ...... phase of the menstrual cycle while they secrete progesterone in the .....phase of the menstrual cycle. 25. A spermatogonium is produced by ...... division

while a secondary spermatocyte results from ......

**Watch Video Solution** 

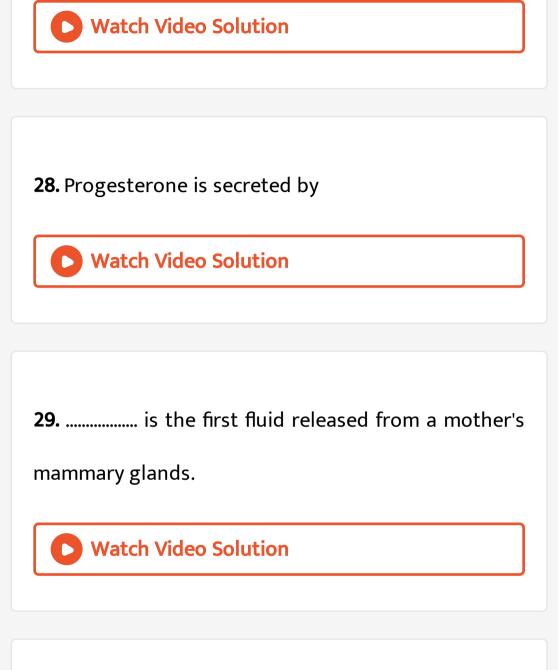
26. Ovulation is induced by a hormone termed

as.....



27. The process of release of ovum from a mature

Graafian follicle is called .....



30. After ovulation Graafian follicle transforms into

And a state of the state of the



**31.** Middle piece of mammalisn sperm possesses

|--|

**32.** ..... refers to various changes a sperm undergoes to fertilize the ovum.

Watch Video Solution

**33.** The process of release of the ovum from a mature

follicle is called\_\_\_\_\_.





34. Feeding..... in the first few days is essential for

preventing infections in a newly born baby.

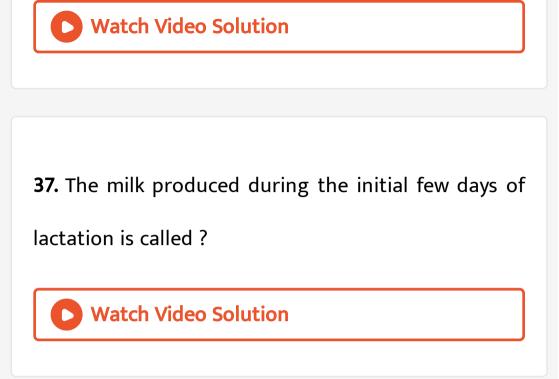
Watch Video Solution

35. ..... cells present in mammalian testes help to

nourish the sperms.

**Watch Video Solution** 

36. Anterior part of sperm is called .....



## Quick Memory Test C Choose The Correct Alternative

1. Mesorchium/Mesovarium suspends the ovary of

human female.

Watch Video Solution

2. Urethra of human male carries only sperms/only

urine/both sperms and urine.



3. After the child birth, milk formation is controlled by

prolactin/oxytocin.

Watch Video Solution

**4.** Release of mature sperms from Sertoli cells is called spermiogenesis/spermiation.

Watch Video Colution



**5.** Transformation of young primary follicle to Graafian follicle is controlled by FSH/LH of pituitary

Watch Video Solution

6. Acrosome of sperm is formed from Golgi body/ER

of spermatid.



7. Progesterone is secreted by corpus luteum/corpus

albicans of ovary.



8. Parturition is aided by oxytocin/relaxin/axytocin

and relaxin both.

Watch Video Solution

9. Colostrum of human female contains antibodies-

A/antibodies-G



10. Site of implantation is endometrium/myometrium

of uterus.



**11.** Antifertilizin lies on sperm/ovum.

Watch Video Solution

12. Adrenal cortex is ectodermal/mesodermal in

origin.





13. Clitoris of female and Glans of penis of male are

homologous/analogous structures.

**Watch Video Solution** 

14. Prolactin/Oxytocin stimulates milk ejection from

the mammary glands.



15. Formation of spermatozoa from spermatids is

called spermiogenesis/spermiation.



# **Revision Exercises Multiple Choice Question**

1. Blastopore is the opening of:

A. Blastocoel

**B.** Archenteron

C. Coelenteron

D. Gastrocoel



**2.** Division of human egg is:

A. Holoblastic, equal

B. Meroblawstic

C. Holoblastic, unequal

D. None of these



3. Copper -T prevents :

A. Ovulation

B. Attachment of fertilized ovum

C. Fertilization

D. All of above



4. Which of the germ layers is best associated with

development of heart?

A. Ectoderm

B. Endoderm

C. Mesoderm

D. All of these



5. A human female reaches menopause around the

age of

A. 70 years

B. 25 years

C. 15 years

D. 50 years

Answer: D



6. The initial step during fertilization of egg is:

A. Penetration of sperm into ovum

B. Fertilizin-antifertilizin reaction

C. Formation of fertilization cone

D. Formation of fertilization membrane

Answer: B

**Watch Video Solution** 

7. Blastula of frog is:

A. Stereoblastula

B. Coeloblastula

C. Discoblastula

D. Superficial blastula

Answer: B

**Watch Video Solution** 

8. In most mammals, testes are located in scrotal sacs

for :

A. Sex differentiation

B. Sperm development in cooler condition

C. Independent functioning of kidneys

D. More space to visceral organs

#### Answer: B

**Watch Video Solution** 

9. In which part of sperm, mitochondria are present?

A. Head

B. Tail

C. Neck

D. Middle piece

Answer: D



10. Grey crescent is

A. Brain of rabbit

B. Fertilized egg of frog

C. Eye of frog

D. Retina of cockroach

## Answer: B



**11.** The change in a mammalian sperm which prepares

it to fertilized the ovum is termed:

A. Metamorphosis

**B.** Capacitation

C. Maturation

**D.** Preparation

Answer: B



12. What happens during spermatogenisis?

A. Mitosis

**B.** Meiosis

C. Both (a) and (b)

D. Metamorphosis

#### Answer: C

Watch Video Solution

**13.** The Mullerian duct in the female amniotes developes into:

A. Oviduct

**B.** Ureters

C. Seminal receptacle

D. Uterus

Answer: A

**Watch Video Solution** 

**14.** Cervix is a part:

A. Of kidney

B. of fallopian tube

C. Of epididymis

D. Between uterus and vagina

#### Answer: D

**Watch Video Solution** 

**15.** Progesterone production fails during:

A. Lactation

B. Menopause

C. Gestation

D. Menstruation

**Answer: B** 



# 16. Egg released by the Graafian follicle is surrounded

by:

A. Zona pellucida

B. Vitelline membrane

C. Plasma membrane

D. All of these

Answer: D



17. Metamorphosis is associated with:

A. Excretion

B. Embryology

C. Respiration

D. Endocrinology

**Answer: B** 

**Watch Video Solution** 

**18.** Glands secreting male sex hormone are

A. Leydig's cells

B. Seminiferous tubules

C. Vasa deferentia

D. Testes

Answer: A

**Watch Video Solution** 

19. Estrogen is secreted by

A. Corpus luteum

B. Membrana granulosa of Graafian follicle

C. Pituitary

D. Germinal epithelium of ovary

Answer: B

**Watch Video Solution** 

# **20.** Ovulation occurs on the day of menstrual cycle:

- A.8 10
- $\mathsf{B.}\,12-14$
- C. 14 16

D. Last two days of menstrual cycle



**21.** Which set is similar?

A. Corpus luteum-Graafian follicle

B. Sebum-sweat

C. Bundle of His-Pace maker

D. Vitamin B, Niacin

Answer: A



22. Amphiblastula is the larva of

A. Hydra

B. Planaria

C. Sycon

D. Leucosolenia

Answer: C



23. Testes descend into scrotum in mammals for

- A. Spermatogenesis
- B. Development of visceral organs

C. Fertilization

D. Development of sex organs

Answer: A

Watch Video Solution

24. In the male human being, sperms contain one set

of autosomes and:

A. Only one Y-chromosome

B. Only one X-chromosome

C. Both X and Y-chromosome

D. Either X or Y-chromosome

Answer: D

**Watch Video Solution** 

25. Cessation of menstrual cycle in a woman is called

A. Ovulation

B. Menarche

C. Parturition

#### D. Menopause

### Answer: D

**O** Watch Video Solution

26. Antrum is the cavity of :

A. Graafian follicle

B. Gastrula

C. Blastula

D. Ovary

**Answer: A** 



# **27.** This is the method of birth control :

A. GIFT

B. IUD

C. IVF-ET

D. HTF

Answer: B

Watch Video Solution

28. Noncleiodic eggs occur in :

A. Birds

**B.** Fishes

C. Reptiles

D. Platypus

Answer: B



29. Haemoendothelial placents occurs in

A. Man and ape

B. Cow and goat

C. Deer and camel

D. Rat and rabbit

#### Answer: D

Watch Video Solution

**30.** Sperms produce an enzymatic chemical for dissolving the egg coverings, is called :

A. Hyaluronic acid

B. Hyaluronidase

C. Androgamone

D. Diastase

Answer: B

**Watch Video Solution** 

31. The number of polar bodies formed in frog during

oogenesis is :

A. 1

B. 2

C. 3

D. 4

#### Answer: C

**Vatch Video Solution** 

**32.** The persistence of corpus luteum during pregnancy is due to a hormone known as:

A. LH

**B. Estrogens** 

C. Progesterone

D. Chorionic gonadotropin

## Answer: D

**Watch Video Solution** 

**33.** The follicle that ruptures at the time of ovulation

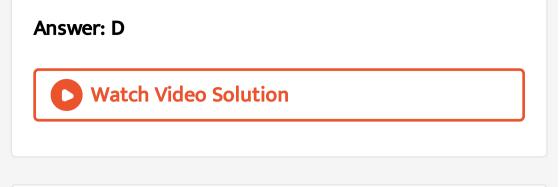
promptly fills with blood , forming :-

A. Corpus luteum

B. Corpus albicans

C. Corpus callosum

D. Corpus haemorrhagium



**34.** Majority of mammalian spermatozoa acquire capacitation in

A. Epididymis

B. Seminal vesicle

C. Female reproductive tract

D. Urethra



**35.** Clitoris in a female mammal is:

A. Homologous to penis of male

B. Analogous to penis of male

C. Non functional

D. Over grown structure

**Answer: A** 



**36.** Which part of sperm provides energy for its movement?

A. Tail

B. Middle piece

C. Head

D. Acrosome

**Answer: B** 



**37.** 5 oogonia yield 10 primary oocytes, then how many ova are produced on completion of oogenesis?

A. 5

B. 10

C. 20

D. 40

Answer: A



**38.** Testosterone is secreted by:

A. Mast cells

B. Sertoli cells

C. Kupffer cells

D. Leydig's cells

Answer: D

Watch Video Solution

39. Menstrual cycle is affectted by

A. Progesterone only

B. LH only

C. LH-PSHE strogens

D. Estrogens only

## Answer: C

**Watch Video Solution** 

**40.** Organisms which give birth to young ones are called.

A. Amphibians

**B.** Oviparous

C. Triploblastic

# D. Viviparous

# Answer: D

# **Watch Video Solution**

**41.** Drones in a colony of honey bees originate by

A. Arrhenotoky

B. Thelytoky

C. Cyclic partenogenesis

D. Diploid parthenogenesis

**Answer: A** 



**42.** The cytoplasm surrounding the mitochondria found in the middle piece of the sperm called:

A. Acrosome

B. Microsome

C. Manchette

D. Centrosome

Answer: C



**43.** Which of the following is correct about mammalian testes?

A. Graafian follicles, sertoli cells, Leydig's cells

B. Sertoli cells, seminiferous tubules, Leydig's cells

C. Graafian follicles, Leydig's cells, seminiferous

tubules

D. Graafian follicle, sertoli cells, seminiferous

tubules

Answer: B



44. Which of the following is a primary sex organ?

A. Vagina

B. Ovary

C. Uterus

D. Fallopian tubes

#### Answer: B



**45.** In which of the following, testes remain in abdomen and do not descend in serotum

A. Elephant

B. Rabbit

C. Human

D. Ox

Answer: A



46. Corpus luteum in mammals occurs in

A. Skin and acts as pain receptor

B. Heart and initiates atrial contraction

C. Ovaries and produce progesterone

D. Brain and connects lobes of cerebrum

Answer: C

**Watch Video Solution** 

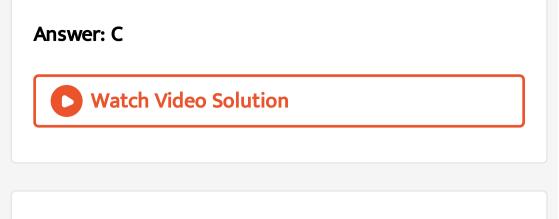
**47.** Tunica albuginea is the covering of:

A. Liver

B. Spleen

C. Testes

D. Lungs



- 48. Bartholin's glands are situated
  - A. At reduced end of tail of birds
  - B. On either side of vagina in humans
  - C. On either side of vas deferens in humans
  - D. On sides of head of some amphibians

Answer: B



**49.** During embryonic development, the establishment of polarity along anterior/posterior, dorsal/ventral or medial/lateral axis is called

A. Axis formation

B. Anamorphosis

C. Pattern formation

D. Organizer phenomena

## Answer: D

Watch Video Solution

50. The number of chromosomes in a mature gamete

gets halved during:

A. Meiosis-IT

B. Formation of first polar body

C. Formation of second polar body

D. Division of secondary oocyte and spermatocyte

Answer: B



51. Both crpus luteum and mascula lutea are:

A. Found in human ovaries

B. A source of hormones

C. Characterized by yellow colour

D. Contributory in maintaining pregnancy

Answer: C

Watch Video Solution

52. The phase of menstrual cycle in humans that lasts

for 3-4 days is:

A. Follicular phase

B. Ovulatory phase

C. Luteal phase

D. Menstruation

Answer: A

**Watch Video Solution** 

**53.** Which one of the following statements with regard to embryonic development in humans is correct?

A. Cleavage divisions bring about considerable increase in the mass of protoplasm

B. In second cleavage division, one of the two

blastomeres usually divides a little sooner than

the second

C. With more cleavages, the resultant blastomeres

become larger and larger

D. Cleavage divisions result in a hollow ball of cells

called morula.

Answer: B



**54.** In spermatogenesis, the phase of maturation involves:

A. Formation of spermatids from primary spermatocytes through meiosis
B. Formation of oogonia from spermatocytes through meiosis
C. Growth of spermatogonia into primary spermatocytes

D. Formation of spermatogonia from gonocytes through mitosis.



**55.** Sertoli cells are found :

A. In upper part of Fallopian tubes

- B. In germinal epithelium of seminiferous tubules
- C. Between the seminiferous tubule
- D. In germinal epithelium of ovary

Answer: B



56. How can one keep a tadpole of frog unchanged in

the same stage for a pretty long time?

A. Maintain them on very little food

B. Provide a diet rich in proteins

C. Add lot of thyroxine to the aqueous medium

D. Provide them an antithyroid substance like

thiourea.

Answer: D



57. Which of the following does not represent the

15th to 28th day of menstrual cycle?

A. Premenstrual phase

B. Progestational phase

C. Luteal phase

D. Follicular phase

Answer: D



**58.** Which one of the following arises from endoderm?

A. Eye

B. Pigment cells

C. Heart

D. Lungs

Answer: D



**59.** Secondary spermatocytes are:

A. Haploids

B. Diploids

C. Triploids

D. Tetraploids

Answer: A

Watch Video Solution

60. An example of centrolecithal egg is :

A. Frog

B. Fish

C. Cat

D. Insect

Answer: D



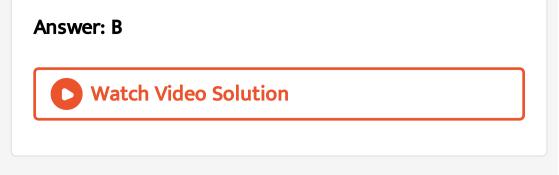
**61.** Polyspermy is prevented by:

A. Fertilization cone

B. Fertilization membrane

C. Jelly coats

D. Tertiary membrane



62. A fluid-filled cavity present within blastula is called

A. Archenteron

B. Blastocoel

C. Blastoderm

D. Blastopore

Answer: B



**63.** The characteristic feature of gastrulation is :

A. Occurrence of more metabolic changes in egg

B. Activation of egg

C. Pace of cellular division is slowed down

D. Formation of fertilization membrane

Answer: C



64. Human placenta is derived from

A. Chorion

B. Allantois

C. Amnion

D. Allantois and chorion

Answer: A

**Watch Video Solution** 

65. In female amniotes, oviduct is modified:

A. Cuvier's duct

B. Gartner's duct

C. Wolffian duct

D. Mullerian duct

## Answer: D



66. Epithelial tubules, connected with rete testis and

lower part of ductus epididymis are called :

A. Ductus choledochus

**B.** Ductus reuniens

C. Ductuli aberrantes

D. Ductuli efferentes

# Answer: D



67. Number of secondary spermatocytes required to

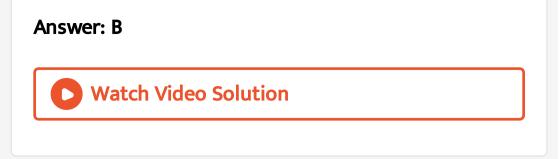
produce 200 spermatozoa are :

A. 50

B. 100

C. 200

D. 400



**68.** After ovulation the structure formed by the rupture of follicle is known as:

A. Corpus albicans

B. Corpus luteum

C. Corpus callosum

D. Corpus mammilare

. . . . . . . .

**Answer: B** 



69. The eggs in Eutherian mammals are :

A. Megalecithal

B. Telolecithal

C. Microlecithal

D. Alecithal

Answer: C



70. Androgens are synthesized by

A. Sertoli cells

B. Leydig cells

C. Seminal vesicles

D. Bulbourethral gland

#### Answer: B

Watch Video Solution

Revision Exercises Very Short Answer Type Question A Questions From State Board Examinations 1. Name two sex hormones secreted by human

females.

<b>Vatch Video Solution</b>
<b>2.</b> Name the birth hormone in human female.
<b>Vatch Video Solution</b>
<b>3.</b> Name two chemical substances released by sperm
during fertilization

Watch Video Solution

4. What is menopause?

<b>Vatch Video Solution</b>
<b>5.</b> On which day of the normal menstrual cycle, ovulation occurs?
Watch Video Solution
<b>6.</b> Which germ layer forms nervous system?

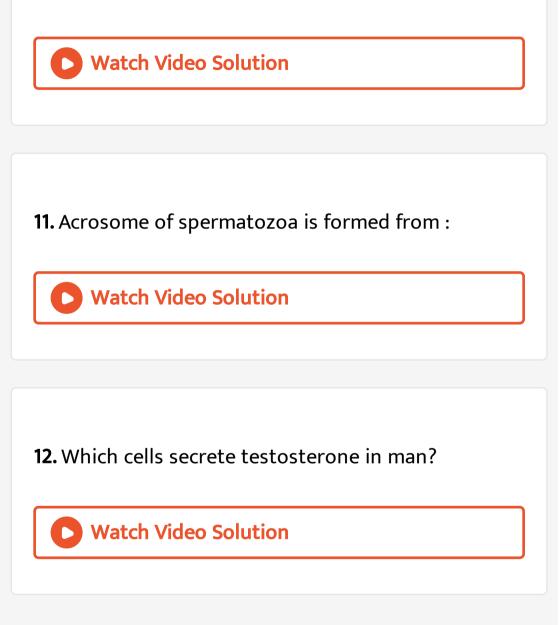
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7. Which hormone induces rupture of Graafian follicle

for ovulation from female ovary?

Vatch Video Solution
8. Define ovulation
Watch Video Solution
<b>9.</b> Why are males said to be heterogametic?
Watch Video Solution

10. Why are testes present inside the scrotum?



13. The major function of corpus luteum is

Watch Video Solution

14. Give a term for the change of spermatid into a

sperm.

Watch Video Solution

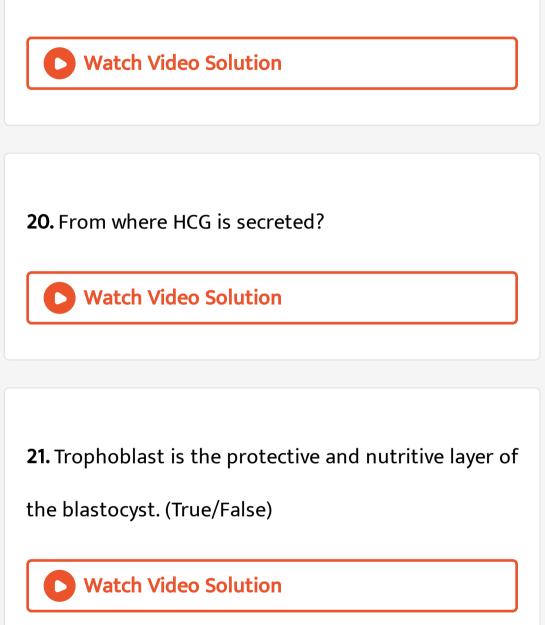
15. Which cells secrete androgens in man?

> Watch Video Solution

**16.** Write the full form of FSH.

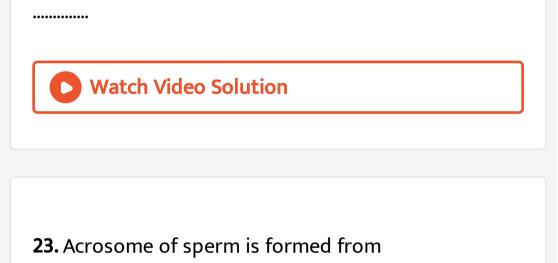
<b>Vatch Video Solution</b>
<b>17.</b> Name the hormone that causes uterine contraction
<b>Vatch Video Solution</b>
<b>18.</b> Define spermiation.
<b>Vatch Video Solution</b>

**19.** What is menarche ?



22. The structure which provides connection between

developing foetus and uterus of the mother is called



Watch Video Solution

24. Implantation

**25.** Breast feeding during initial period of infant growth is necessary to develop immunity of new born babies. Why?

**26.** Name chief layers of human ovum.

Watch Video Solution

Watch Video Solution

27. Why is luteal phase of menstrual cycle also called

a secretory phase?

**28.** How do scrotal sacs act as thermoregulators?

Watch Video Solution	

29. Name two hormones involved in synthesis and

release of milk.

**Watch Video Solution** 

30. Name the embryonic phase which changes zygote

Calution

into blastula.

\//~+

Vidaa



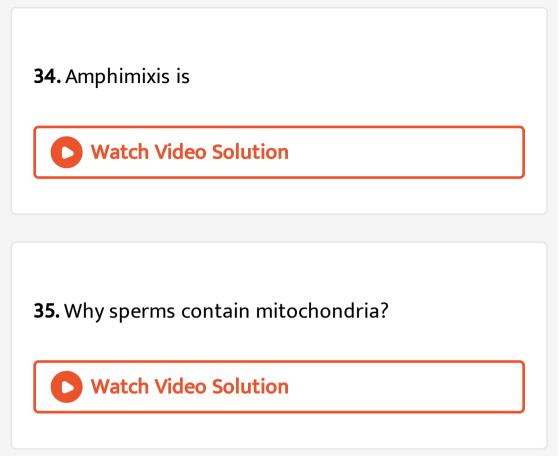
**31.** Which type of mammals show oestrous cylce?

Watch Video Solution

**32.** Give the term for change of spermatid into sperm.

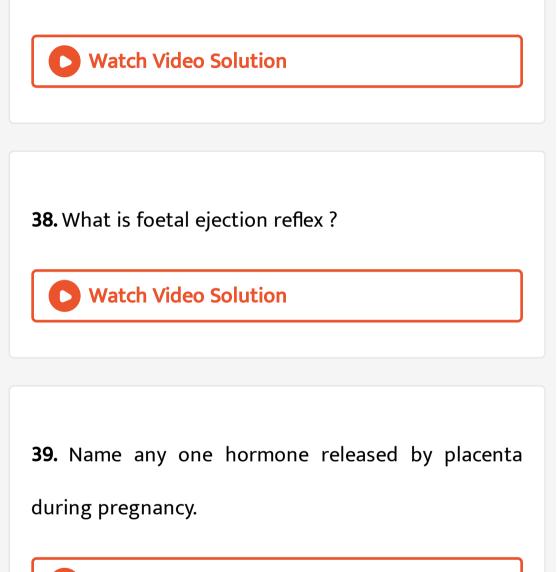
Watch Video Solution

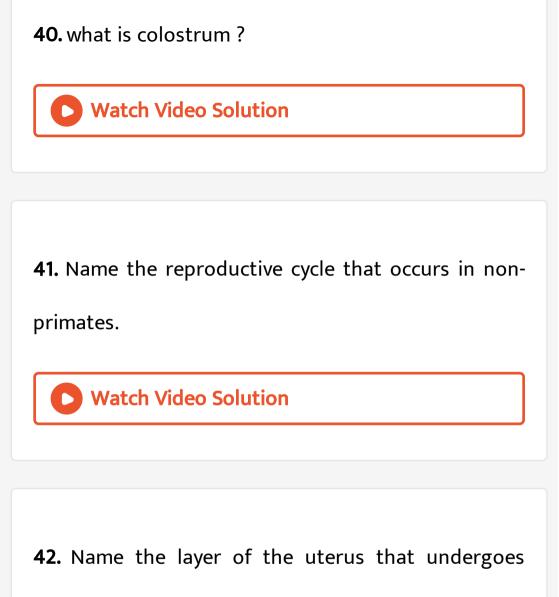
**33.** give the term used for the period between fertillzation and birth of young one.



**36.** What is menarche?

## 37. Implantation





strong contractions during parturition.



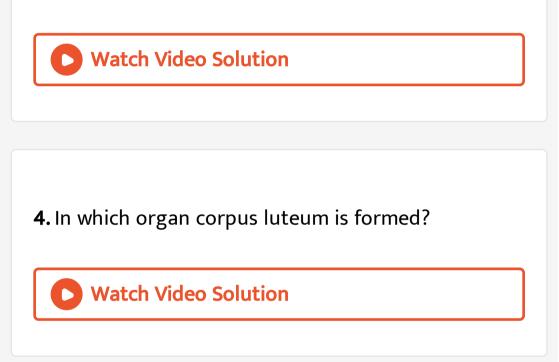
**1.** Name the process of rupture of Graafian follicle and the subsequent release of the egg from the ovary

Watch Video Solution

**2.** How many sperms will be produced from 100 primary spermatocytes and how many tits will be produced from 100 primary oocytes?

3. What is name of enzyme produced in sperm to

help it to enter the ovum?



5. Name the cavity formed in gastrula. What does it

form in the embryo?

6. Name the organelle contained in the neck of the

mammalian sperm



7. Give two striking similarities in the sequence of

embryonic development of all the vertebrates

Watch Video Solution

8. Name the sperm lysin

9. Why is cleavage in mammals referred to as simple

holoblastic?

<b>Watch Video Solution</b>	
<b>10.</b> What is corona radiata?	
<b>Watch Video Solution</b>	

11. Why is oxytocin called "birth hormone" ?

12. Which germ layer forms CNS?

Watch Video Solution

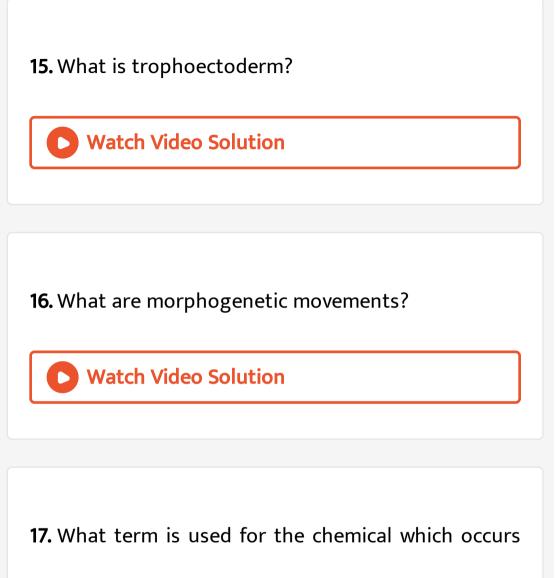
**13.** From which germ layer do the following organs differentiated

(i) Kidney (ii) Urinary bladder

Watch Video Solution

14. At what stage of development, does the human

embryo gets implanted to inner lining of uterus



in the sperm's acrosome and helps in the sperm's

entry into the egg?



18. What does the blastocoel of a mammalian embryo

phylogenetically signify about the ancestors?

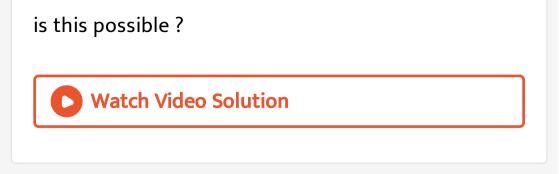
Watch Video Solution

19. Where does fertilization normally take place in a

human female?

Watch Video Solution

**20.** In the whiptail lizards only females are born generation after generation. There are no males. How



**21.** At what stage of life is cogenesis initiated in a human female? When does the oocyte complete oogenesis?



22. Name the embryonic stage that gets implanted in

the uterine wall of a human female.

**23.** Name the phase all organisms have to pass through before they can reproduce sexually.

Watch Video Solution

24. Write the location and function of the sertoli cells

in humans.

**Watch Video Solution** 

25. When do the oogenesis and the spermatogenesis

initiate in human females and males respectively?





26. Mention the difference between spermiogenesis

and spermiation.



27. Where is acrosome present in humans? Write its

function.

28. How is the entry of only one sperm and not many

ensured into an ovum during fertilization in humans?



29. Identify the figure given below and the part

labelled "A"





Revision Exercises Short Answer Type Question A Questions From State Board Examinations **1.** What will be the ratio between sperms and ova produced from 25 primary spermatocytes and 25 primary oocytes? Explain with reasons.

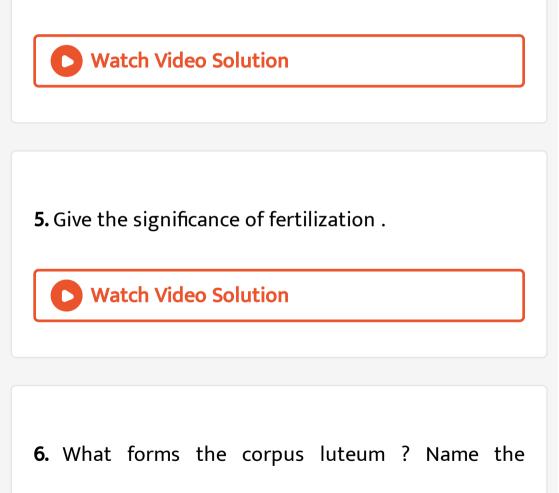
<b>2.</b> What are leydig cells? Write down their functions
<b>Vatch Video Solution</b>

3. Why are polar bodies formed during oogenesis but

not during spermatogenesis?

4. Write two differences between spermtogenesis

and oogenesis



hormones secreted by it.





7. What is parturition? Name the hormone involved in

induction of parturition.

Watch Video Solution

**8.** Give examples of animals exhibiting oestrous cycle.

Watch Video Solution

9. What is the function of placenta in human being?

**10.** Give examples of animals exhibiting menstrual cycle.

Watch Video Solution
<b>11.</b> Implantation
Watch Video Solution
<b>12.</b> What do you mean by parturition?

13. Sketch and label seminiferous tubule as seen in

T.S. of testis.



14. If corpus luteum becomes inactive, what will be its

effect on embryo development? Explain with reasons.



Watch Video

**15.** Write any two differences between external fertilization and internal fertilization.



16. How is placenta formed?

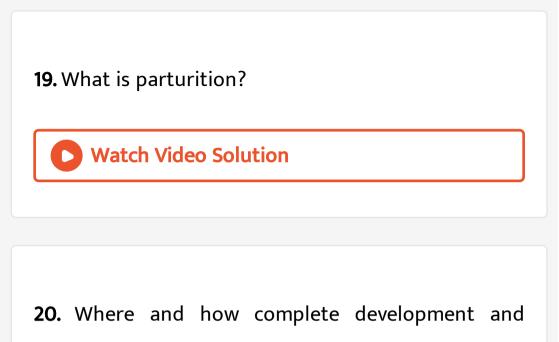
Watch Video Solution

17. State any two differences between follicular phase

and luteal phase of menstrual cycle.

Watch Video Solution

18. What do you mean by pregnancy?



nutrition of embryo takes place in viviparous animals?

**Watch Video Solution** 

**21.** List any four differences between sperm and ovum.



## **22.** Draw a neat diagram of an oocyte and label.

(i) Corona radiata (ii) Zona pellucida (iii) Perivitelline

space (iv) Cortical granules.

Watch Video Solution

## **23.** Draw a well labelled diagram of human sperm.



24. what is parturition ? Which hormones are involved in induction of parturition ?Watch Video Solution

25. Define placenta and give its significance in human

female.

Watch Video Solution

26. Why doctors recommend breast feeding during

initial period of infant growth?



**27.** (a) in which part of human female reproductive system, following events occur:

(i) Fertilization (ii) Implantation

(b) In diagram of blastocyst, identify A and B.



**28.** It is evident that it is the genetic make up of sperm that determines sex of child in human Substantiate

**29.** Mother's milk is considered essential for new born infants. (a) Name the fluid secreted by mother's breast during initial days of lactation. (b) Which type of immunity, does it provide ?

Watch Video Solution

30. How is placenta formed?

31. What is menstrual cycle ? Name any two stages of

menstrual cycle.



32. What is first milk which comes out from mother's

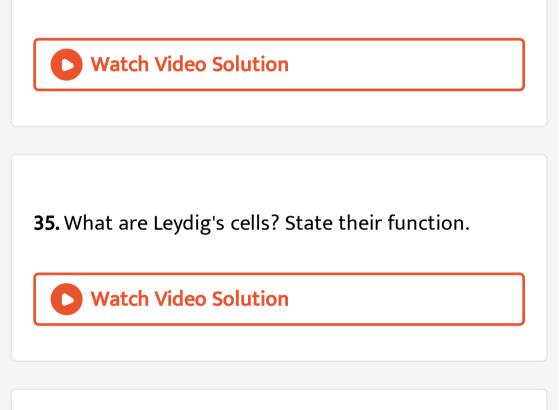
mammary gland called ? State its importance.

Watch Video Solution

**33.** What is fallopian tube? Write its function.

34. What is parturition? Mention two hormones that

induce contraction of uterus.



**36.** Enlist the differences between follicular phase and luteal phase of menstrual cycle.

**37.** Draw a well labelled diagram of a human sperm.

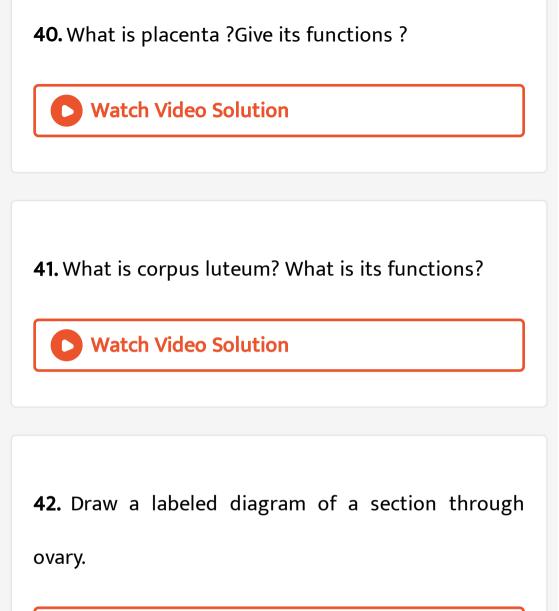
<b>Watch Video Solution</b>	

38. Write any two differences between morula and

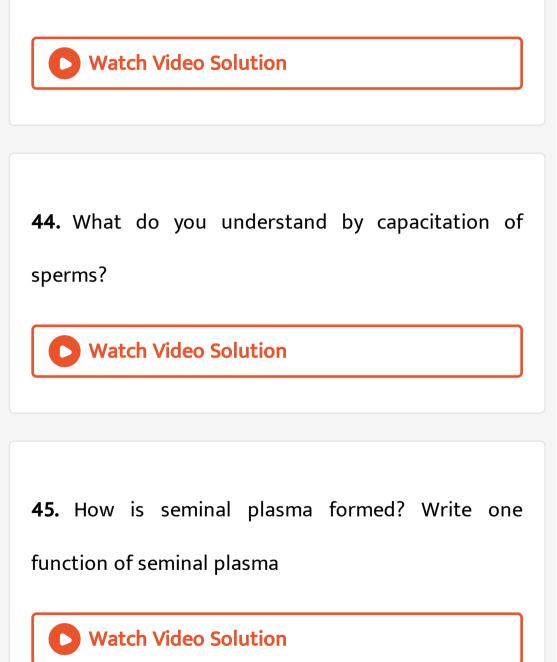
blastula.

Watch Video Solution

**39.** Draw a well labelled diagram of human sperm.



**43.** Explain the role of LH.



**46.** what is colostrum ?

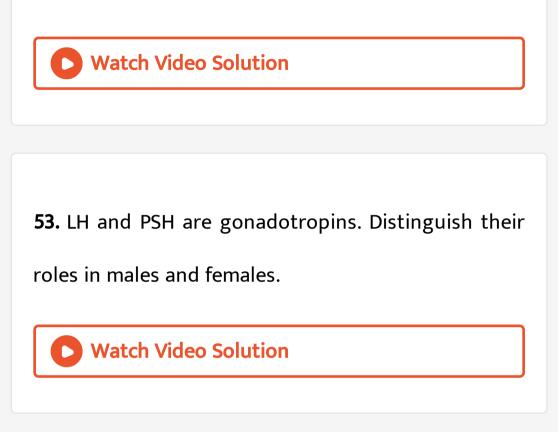
Watch Video Solution 47. List the hormones produced by the placenta during pregnancy. Watch Video Solution

48. What is menopause? Explain briefly.

**49.** Draw a well labelled diagrams of human egg

Watch Video Solution	
<b>50.</b> What is puperty? Explain it briefly in human	
female	
Watch Video Solution	
<b>51.</b> Draw a well-labelled diagram of human sperm.	
<b>Vatch Video Solution</b>	

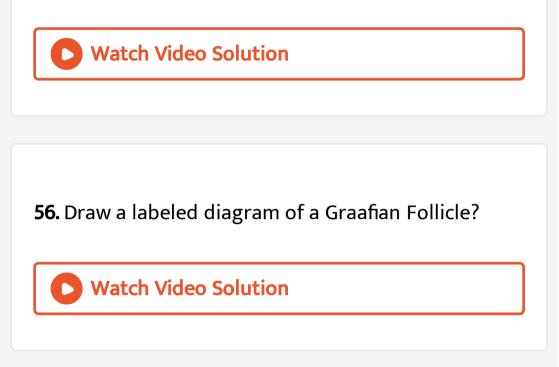
52. What do you mean by "Placenta formation"?



54. what is rete testis ?

55. Describe the formation of Placenta during

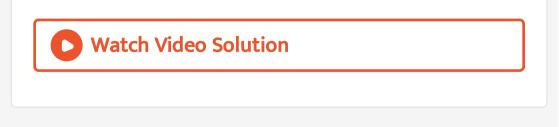
pregnancy



## 57. Draw a well labelled diagram of mammalian

sperm.

58. Draw a well labelled diagram of ovum.



**59.** By which surgical methods permanent contraception is done in male and female human body?

Watch Video Solution

60. How is polyspermy prevented during fertilisation?



61. Write differences between parturition and lactation.

 Watch Video Solution

62. How many X-chromosome(s) and how many

autosome(s) are present in human ovum?

Watch Video Solution

63. What is colostrum? Name any one of the disease

resisting antibodies present in it.

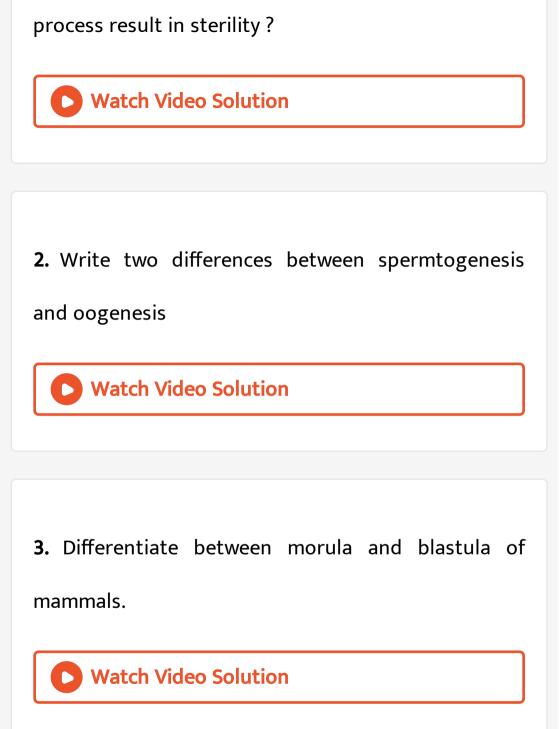
**64.** Observe the diagram given below showing the sectional view of the female reproductive system and name the parts labelled "A", "B", "C" and "D".



View Text Solution

Revision Exercises Short Answer Type Question B Questions From Cbse Examinations

**1.** name the hormone responsible for the descent of testes into the scrotum , why does the faiture of the



**4.** Where are Leydig's cells located ? Name their hormonal secretions. Which hormone stimulates their secretion ?

Watch Video Solution

5. What structure forms the corpus luteum and at

what stage ? Name two hormones secreted by it .

Watch Video Solution

6. Describe the functions of humans placenta .

**7.** Draw a diagrammatic sketch of the microscopic view of a mammalian sperm and label any four parts of it.



**8.** Draw a labelled diagram of a part of T.S. through seminiferous tubule of human testis showing the various stages of spermatogenesis.

**9.** Given below is an incomplete flow chart showing influence of hormones on gametogenesis in males. Observe the flow chart carefully and fill in the blanks A, B, C, and D.



View Text Solution

10. Where are fimbrae present in human female

reproducative system ? give their funcations.



**11.** Name the muscular and glandular layers of human uterus. Which one of these layers undergoes cyclic changes during menstrual cycle? Name hormone essential to maintain this cycle.



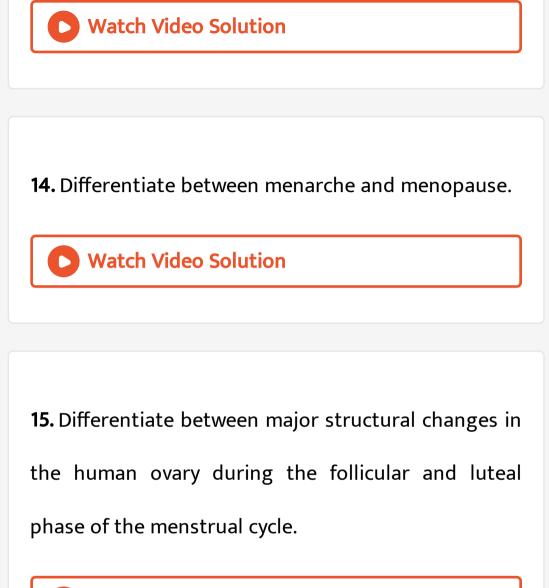
Watch Video Solution

12. Where are the Leydig cells present ? What is their

role in reproduction ?



**13.** Placenta acts as an endocrine tissue. Justify.



16. (a) Where do the signals for parturition originate from in humans?(b) Why is it important to feed the newborn babies

on colostrum?



**17.** When and where do chorionic villi appear in humans ? State their function.



18. Explain the significance of meiocytes in a diploid

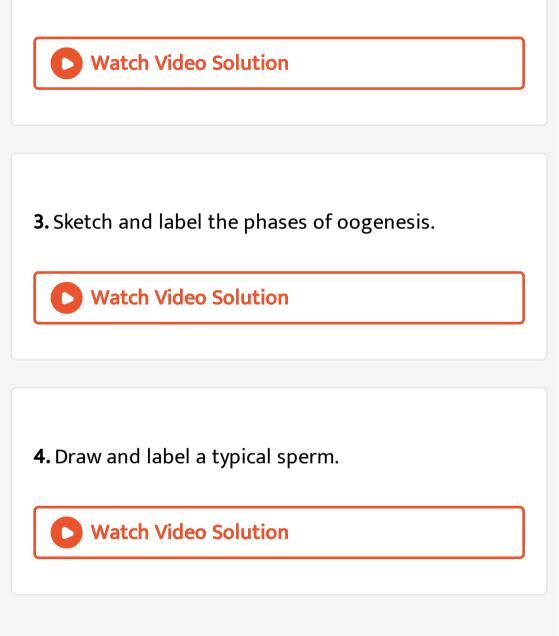
organism.



Revision Exercises Short Answer Type Question A Questions From State Board Examinations

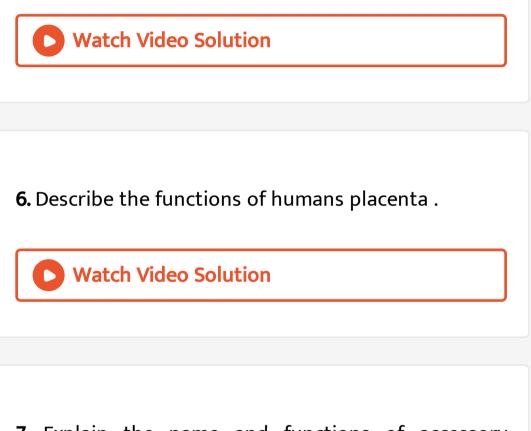
 Draw a well labelled diagram of human spermatozoan or human ovum.

2. Draw a well labelled diagram of L.S. of human ovary



5. (a) Draw a neat and labelled diagram of human

sperm. (b) What is menstrual cycle?



**7.** Explain the name and functions of accessory reproductive glands in man.

8. Where are Leydig cells located? What are their functions?

 • Watch Video Solution

9. Draw a well labelled diagram of sectional view of

human female reproductive system.

Watch Video Solution

10. Write a short note on the process of fertilization

in human female.



**12.** Describe menstrual cycle in human female.

**Watch Video Solution** 

13. Draw a neat and labelled diagram of human sperm

14. (a) Draw a neat and labelled diagram of mammary

gland. (b) What is placenta?

Watch Video Solution

**15.** What is placenta ? Mention two important functions of placenta.

Watch Video Solution

**16.** Define ovulation. Draw a labelled diagram of mammalian ovum



17. Define cleavage. Draw a labelled diagram to show

different stages of cleavage.

**Watch Video Solution** 

**18.** Draw and label the internal structure of the seminiferous tubule



19. Describe the structure of mature Graafian follicle

with labelled diagram.



20. Discuss the role of FSH and LH in gamete

formation

Watch Video Solution

21. What is oogenesis? Briefly describe the process of

oogenesis in human female?



**22.** Draw a well labelled diagram of human sperm.

Watch Video Solution

**23.** What is menstrual cycle? Name the four phases of menstrual cycle. Mention the hormones involved in the control of menstrual cycle in human female



24. Describe the structure of human spermatozoan

with a diagram.



25. Draw a labelled diagram of molecular structure of

human foetus in the uterus

Watch Video Solution

26. What is menstrual cycle? How does it differ from

oestrous cycle?



27. Draw a labelled diagram of T.S. of mammalian

ovary



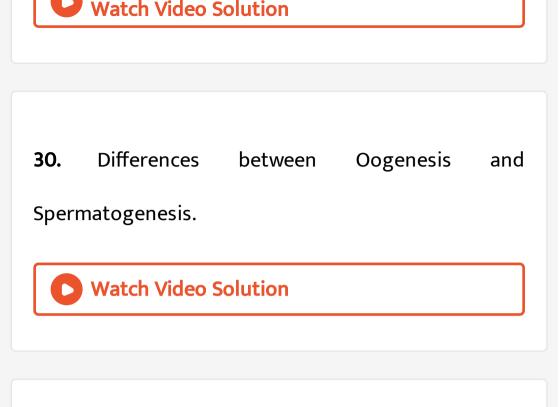
28. Differentiable between spermatogenesis and

oogenesis.



**29.** What is fertilization? State its significance.





**31.** Express diagrammatically the various phases of

spermatogenesis.



32. Define spermatozoa. Draw a labelled diagram of a

mammalian sperm.



33. Draw a neat and labelled diagram of a human

sperm.

> Watch Video Solution

34. Describe the three parts of male reproductive

system in human



**35.** Distinguish between oviparous and viviparous animals.

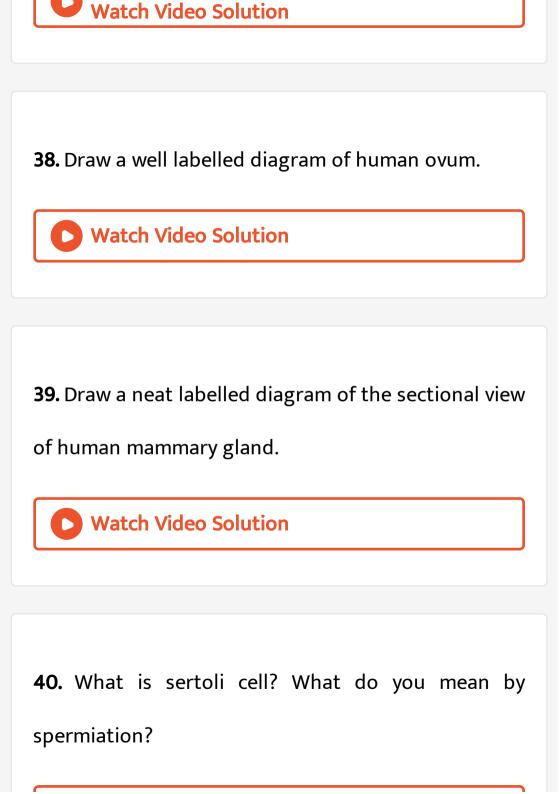
Watch Video Solution

**36.** Draw a well labelled diagram of L.S. Testis.

Watch Video Solution

**37.** Draw a well labelled diagram of T.S. ovary of human female.







Revision Exercises Short Answer Type Question B Questions From Cbse Examinations

1. (a) In which part of the human female reproductive

system do the following events take place?

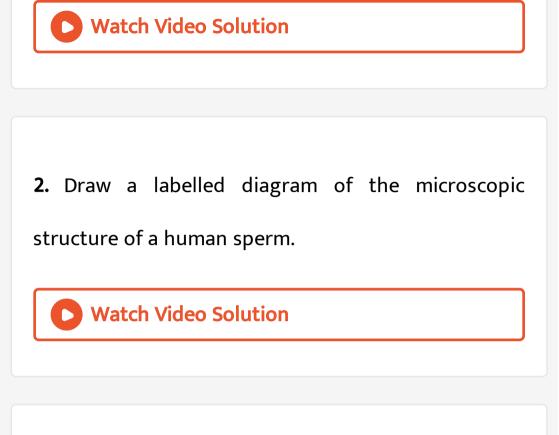
I-Release of 1st polar body

II-Release of 2nd polar body

**III-Fertilisation** 

**IV-Implanatation** 

(b) From where do signals for parturition originate and what does material pituitary release for stimulating uterine contrations for child birth ?



**3.** Draw a labelled diagram of a sectional view of human ovary showing various stages of follicles growing in it.



**4.** Mention the target cells of lutenising hormone in human males and female .explain the effect of the changes which the hormone induces in each case .

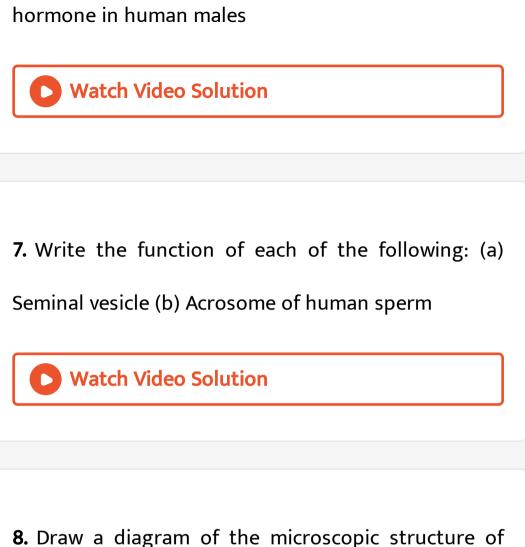
Watch Video Solution

**5.** Write the function of each of the following:

(a) Oviducal fimbriae (b) Oxytocin

Watch Video Solution

**6.** Write the function of each of the following: (a) Middle piece in human sperm (b) Luteinizing



human sperm. Label the following parts in it and write their functions.

(a) Acrosome

(b) Nucleus

(c) Middle piece



**9.** (a) Draw a diagram of the structure of a human ovum surrounded by corona radiata. Label the following parts :

(i) Ovum, (ii) Plasma Membrane, (iii) Zona Pellucida

(b) State the function of Zona Pellucida.



**10.** Explain the steps in the formation of an ovum from an oogonium in humans.

or

Suggest and explain any three Assisted Reproductive

Technologies (ART) to an infertile couple.

Watch Video Solution

**11.** Draw the following diagrams related to human reproduction and label them.

(a) The zygote after the first cleavage division

(b) Morula stage

(c) Blastocyst stage (sectional view)



**12.** Name and explain the role of inner and middle walls of the human uterus.

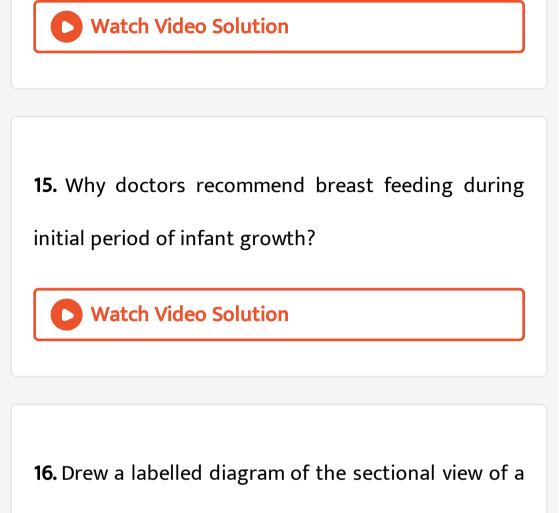


13. Drew a labelled diagram of the sectional view of a

human seminiferous tuble (Six parts to be labelled



14. Describe the process of Parturition in humans

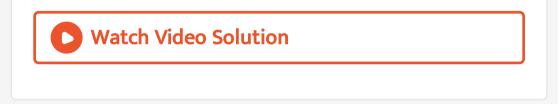


human seminiferous tuble (Six parts to be labelled



17. Drew a diargam of a mature human sperm .Label

any three parts and write their functions .



**18.** Construct a flow chart exhibiting sequential events of cogenesis.

Watch Video Solution

**19.** Draw a diagrammatic sectional view of a seminiferous tubule (enlarged) in humans and label its parts.



Revision Exercises Long Answer Type Question A Question From State Board Examination

1. Explain the following phases in the menstrual cycle

of a human female :

- (i) Menstrual phase
- (ii) Follicular phase
- (iii) Luteal phase



2. Describe in detail the accessory glands of male and

female human being



3. What is spermatogenesis? Give schematic

representation of spermatogenesis.

Watch Video Solution

4. What is oogenesis? Give schematic representation

of oogenesis.



5. What are the major functions of male accessory

ducts and glands?

Watch Video Solution

6. Describe the human female reproductive system

with the help of labelled diagram.



7. Define gametogenesis and explain the diagrammatic representation of spermatogenesis.
 Watch Video Solution

8. Describe the structure of human female

reproductive system with a neat labelled diagram

Watch Video Solution

9. Draw a labeled diagram of female reproductive

system. Answer



10. Explain spermatogenesis and cogenesis only by

sketches.

**Watch Video Solution** 

## 11. What is fertilization? How does implantation occur

after fertilization in human being?



**12.** What is gametogenesis? With the help of graphic representation, explain the stages involved in oogenesis.

Watch Video Solution

13. What is menstrual cycle? Which hormones

regulate menstrual cycle?

**Watch Video Solution** 

Watch Video Colution

**14.** Draw a labelled diagram of a Graafian follicle?



**15.** (a) Explain the process of spermatogenesis in humans.

**Watch Video Solution** 

**16.** What is fertilization? In which part of the human female reproductive system does it occur? Explain the significance of fertilization.



**17.** What is implantation? Where does it take place? How many days after fertilization does it take place in humans? Explain briefly how it occurs.

Watch Video Solution

**18.** Enumerate the events in the ovary of a human female during follicular phase and luteal phase of the menstrual cycle.

19. Describe the process of spermatogenesis in human male.
Watch Video Solution

20. Write a note on pregnancy and embryonic

development in human female.

> Watch Video Solution

21. Define spermatogenesis. Explain in brief various

stages of spermatogenesis.



**22.** Define spermatogenesis. Where does it occur ? Name the hormone that controls it. Give its significance

**Watch Video Solution** 

**23.** What is placenta ? Explain the functions of placenta.

24. Explain oogenesis with the help of a neat labelled

diagram



**25.** Explain the various phases of the menstrual cycle.



26. What is oogenesis? Describe different phases of

oogenesis giving a labelled diagram.

27. What is menstrual cycle? Mention the ovarian

changes that occur during the menstrual cycle.



28. Define menopause. Explain briefly the four phases

of menstrual cycle of human female.

> Watch Video Solution

29. What is gametogenesis ? Describle the process of

spermatogesis.

30. Fertilization is a physicochemical process. Explain

various changes that take place after fertilization

Watch Video Solution

**31.** Write brielfy the chages in the following organs in the different phases of the menstrual cycle - (a) Ovaries , ( B) Uterus ,( C) Fallopian tubes .

**32.** Mention the name and role of hormones which are involved in regulation of gamete formation in human males.

**Watch Video Solution** 

**33.** What is spermatogenesis? With the help of a suitable diagram describe different steps involved in this process.

**34.** What is menstrual cycle? Explain the various

phases of menstrual cycle.



35. Describe in brief the female reproductive system

of human with diagram.

Watch Video Solution

**36.** Draw a labeled diagram of male reproductive system.

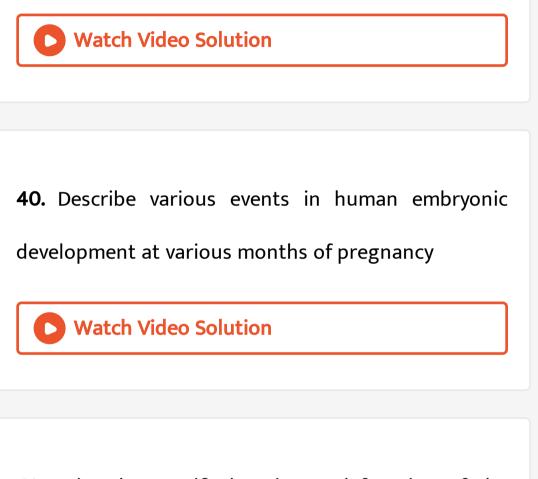
**37.** Describe the changes that occurs in ovaries and uterus in human female during the reproductive cycle .



**38.** Describe the role of pituitary and ovarian hormones during the menstrual cycle in a human female.

39. Describe the process of development of an ovum

from an oogonium in human female.



**41.** Write the specific location and function of the following cells in human males: (a) Leydig cells (b) Sertoli cells (c) Primary spermatocytes





**42.** When and where are primary oocytes formed in human female? Trace the development of these oocytes till ovulation.

Watch Video Solution

**43.** (a) Define parturition. Name the hormones involved in induction of parturition (b) In our society, women are often blamed for giving birth to daughters. Can you explain why this is not correct?



44. Give a brief account of human male reproductive

system with well labelled diagrams.

Watch Video Solution

**45.** (a) How is polyspermy prevented in human ? (b) What is placenta ? Write four functions of human placenta.



46. Define spermatogenesis. Explain the process of

spermatogenesis.



47. Draw a neat labelled, diagrammatic sectional view

of female reproductive system.

> Watch Video Solution

48. What is oogenesis? With the help of suitable

diagram, describe the steps involved in this process.



**49.** What is menstrual cycle? Explain the various

phases of menstrual cycle.

**O** Watch Video Solution

50. Define oogenesis. Explain the stages of oogenesis.

Watch Video Solution

51. Draw a well labelled sectional view of seminiferous

tubule and explain its structure.





52. Draw a well labelled diagrammatic sectional view

of mammary gland. Describe its structure. (

**Watch Video Solution** 

53. Describe the ultrastructure of human sperm with

the help of a well-labelled figure.



54. What is spermatogenesis? Briefly describe the

process of spermatogenesis.



Revision Exercises Long Answer Type Question B Question From Cbse Examination

**1.** Drew a diagrammatic sectional view of human ovary showing different stage of oogenesis along with corpus luteum .



2. (a) When and how does placenta develop in human female? (b) How is the placenta connected to the embryo? (c) Placenta acts as an endocrine gland. Explain.



Watch Video Solution

3. (a) Give a schematic representation showing the

events of spermatogenesis in human male.

(b) Describe the structure of a human sperm.



**4.** (a) Draw a diagrammatic labelled sectional view of

seminiferous tubule of a human.

(b) Describe in sequence the process of

spermatogenesis in human

Watch Video Solution

5. Describe the post-zygotic events leading to implantation and placenta formation in humans. Mention any two functions of placenta.

**6.** (a) Write the specific location and the functions of the following cells in human males :

(i) Leydig cells (ii) Sertoli cells (iii) Primary spermatocyte

(b) Explain the role of anyu two accessory glands in human male reproductive system

Watch Video Solution

7. (a) Draw a diagrammatic sectional view of the female reproductive system of human and label the parts

(i) where the secondary oocytes develop

- (ii) which helps in collection of ovum after ovulation
- (iii) where fertilization occurs
- (iv) where implantation of embryo occurs.
- (b) Explain the role of pituitary and the ovarian

hormones in menstrual cycle in human females.



8. (a) Describe the events of spermatogenesis with

the help of a schematic representation.

(b) Write two differences between spermatogenesis and oogenesis.

**9.** (a) Describe the events of Oogenesis with the help of schematic representation. (b) Write two differences between Oogenesis and

Spermatogenesis.



**10.** Draw a diagrammatic sectional view of a human seminiferous tubule, and label sertoli cells, primary spermatocyte, sperm-atogonium and spermatozoa init.

b) Explain the hormonal regulation of the process of spermatogenesis in humans.



**11.** Explain the ovarian and uterine events that occur during a menstrual cycle in a human female, under the influence of Pituitary and Ovarian hormones respectively.



12. a) Draw a labelled diagmmatic view of human male

reproductive system.

b) Differentiate between:

i) Vas deferens and vasa efferentia

ii) Spermatogenesis and spermeogenesis



**13.** (a) Write the specific location and the functions of the following cells in human males :

(i) Leydig cells (ii) Sertoli cells (iii) Primary

spermatocyte

(b) Explain the role of anyu two accessory glands in

human male reproductive system



14. (a) Where does fertilization occur in humans ?
Explain the events that occur during this process.
(b) A couple where both husband and wife are producing functional gametes, but the wife is still unable to conceive, is seeking medical aid. Describe any one method that you can suggest to become happy parents.



15. During the reproductive cycle of human female,

when where and how does a placenta develop ?

what is the function of placenta during pregnancy

and embryo development?



**16.** Describe the changes that occurs in ovaries and uterus in human female during the reproductive cycle .

Watch Video Solution

**17.** Explain the development of a secondary oocyte ( ovum) in a human female from the embryonic stage

upto its ovulation. Name the hormones involved in

this process.



**18.** Describe the role of pituitary and ovarian hormones during the menstrual cycle in a human female .

Watch Video Solution

**19.** (a) Explain the menstrual phase in a human female. State the levels of ovarian and pituitary hormones during this phase.

(b) Why is follicular phase in the menstrual cycle also referred as proliferative phase ? Explain.
(c) Explain the events that occur in a graafian follicle at the time of ovulation and thereafter. Itbvrgt (d) Draw a graafian follicle and label antrum and secondary oocyte.

Watch Video Solution

**20.** a) Arrange the following hormones in sequences

of their secretion in a pregnant woman.

b) Mention their source and the function they perform:

hcG, LH, FSH, Relaxin.



**21.** a) Name the hormones secreted and write their functions:

- i) by corpus luteum and placenta (any two).
- ii) During Follicular phase and parturition.
- b) Name the stages in a human female where:
- i) Corpus luteum and placenta co-exist.
- ii) Corpus luteum temporarily ceases to exist.



**22.** (a) Where in the fallopian tube does fertillization occur in humans ? Describe the devlopment of a fertillzed ovum upto implantation .

(b) How is polyspermy precented in humans?



**23.** (a) Explain the following phases in the menstrual cycle of a human female :

(i) Menstrual phase (ii) Follicular phase (iii) Luteal phase .

(b) A proper understanding of menstrual can help

immensely in family planning . Do you agree with the

statement ? provide resons for answer.



24. (a) Explain menstrual cycle in human females .

(b) How can the scientific understanding of the menstrual cycle of human females help as a contraceptive measure ?



25. Explain the ovarian and uterine events that occur

during a menstrual cycle in a human female, under

the influence of Pituitary and Ovarian hormones

respectively.



Competition File Objective Type Questions A Multiple Choice Questions

1. In the human female, menstruation can be deferred

by the administration of:

A. FSH only

B. LH only

C. Combination of FSH and LH

# D. Combination of estrogens and progesterone

## Answer: D

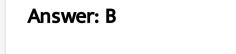


2. Which part of ovary in mammals acts as an

endocrine gland after ovulation?

A. Vitelline membrane

- B. Graafian follicle
- C. Stroma
- D. Germinal epithelium





# 3. A common scent producing gland among mammel

is

A. Anal gland

B. Prostate gland

C. Adrenal gland

D. Bartholin's gland

#### Answer: A





4. Bidder's canal is meant for passage of

A. Ova

B. Urine

C. Sperms

D. All of these

Answer: C



**5.** On the basis of nature of maternal and foetal tissues, the types of placentae are:

(1) Haemochorial placenta (2) Haemoendothelial placenta (3) Cotyledonary placenta (4) Deciduate placenta

Choose the correct answers :

A. 1, 2, 3 are correct

B. 1 and 2 are correct

C. 2 and 4 are correct

D.1 and 3 are correct

#### Answer: B





**6.** Cowper's glands secrets a substance to:

- 1. nourish sperm
- 2. neutralize acidity
- 3. kill pathogens
- 4. lubricate female's vagina to facilitate copulation

## A. 1, 2, 3 are correct

- B. 1 and 2 are correct
- C. 2 and 4 are correct
- D. 1 and 3 are correct

## Answer: C



7. Which of the following is correct grouping?

A. Ectoderm-Retina, epidermis and nervous system

B. Mesoderm-Ovary, urinary bladder and kidneys

C. Mesoderm-Kidneys, connective tissue and testis

D. Endoderm-Thyroid, pineal and thymus.

Answer: A

Watch Video Solution

8. Which of the following are haploid in nature?

- (1) Spermatides
- (2) Spermatogonia
- (3) Primary spermatocytes
- (4) Secondary spermatocytes
  - A. 1, 2, 3 are correct
  - B. 1 and 2 are correct
  - C. 2 and 4 are correct
  - D.1 and 3 are correct

#### Answer: B



9. Corpus luteum secretes

A. Progesterone and estrogens

B. LH

C. Only progesterone

D. Progesterone and LH

**Answer: A** 



10. Testosterone is secreted by

A. Leydig's cells

B. Spermatogonia

C. Spermatids

D. All of the above

Answer: A

Watch Video Solution

11. Which of the following control the function Sertoli

cells?

A. FSH

**B. Estrogens** 

C. ACTH

D. Testosterone

Answer: A

Watch Video Solution

12. Fertilization of sperm and ova takes place in:

A. Ampulla of oviduct

B. Isthmus of oviduct

C. Fimbriae of oviduct

D. None of the above

#### Answer: A

**Watch Video Solution** 

13. Capacitation of sperms occurs in

A. Vas efferens

B. Vasa deferentia

C. Female genital tract

D. Vagina

Answer: C



**14.** Which of the following hormones is not a secretory product of human placenta?

A. Human chorionic gonadotropin

**B.** Prolactin

C. Oestrogen

D. Progesterone

Answer: B



15. Bartholin's glands of female correspond to which

gland in male?

A. Cowper's glands

B. Inguinal glands

C. Rectal glands

D. Prostate glands

Answer: A



16. Corpus spongiosum is found in:

A. Ovary

B. Penis

C. Testis

D. Uterine wall

Answer: B



17. Cytoplasm of ovum does not contain:

A. Golgi complex

B. Centrosome

C. Mitochondria

D. Ribosomes

**Answer: B** 

**Watch Video Solution** 

**18.** If mammalian ovum fails to get fertilized, which one of the following is unlikely?

A. Corpus luteum will degenerate

B. Estrogen secretion further decreases

C. Primary follicle starts developing

D. Progesterone secretion rapidly declines

#### Answer: B

**Watch Video Solution** 

**19.** Leydig's cells secrete:

A. Oestrogens

B. Testosterone

C. Progesterone

D. Corticosterone

**Answer: B** 



# **20.** The head of the epididymis at the head of the testis is called

A. Vas deferens

B. Gubemaculum

C. Cauda epididymis

D. Caput epididymis

#### Answer: D



21. The extra embryonic membrane of the mamalian

embryo are derived from

A. Trophoblast

B. Follicle cells

C. Formative cells

D. Inner cell mass

Answer: A



22. The eggs of silk moth are

A. Homolecithal

B. Telolecithal

C. Mesolecithal

D. Centrolecithal

Answer: D

**Watch Video Solution** 

23. Natural parthenogenesis is found in

A. Sharks

B. Housefly

C. Drosophila

D. Honey bee

Answer: D

**Watch Video Solution** 

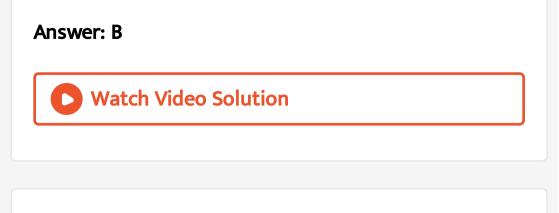
24. Blastula of frog has:

A. Blastopore

B. Blastocoel

C. Archenteron

D. Gastropore



**25.** Which accessory genetial gland occurs only in mammalian male?

A. Prostate gland

B. Perineal gland

C. Cowper's gland

D. Bartholin gland

#### Answer: A





# 26. Mature differentiated cells revert to meristematic

activity to form callus by

A. Dedifferentiation

**B.** Differentiation

C. Cyto-differentiation

D. Redifferentiation

#### **Answer: A**

Watch Video Solution

27. Which of the following animals is having

longitudinal binary fission

A. Euglena

B. Plasmodium

C. Planaria

D. Paramecium

Answer: A



28. Find out the wrong statement :

A. Amnion is outer layer containing amniotic fluid

that acts as shock absorber to soft embryo

B. Yolk sac is a foetal membrane that helps in

nourishment of the embryo

C. In mammals, allantois is not excretory in

function

D. Chorio-allantoic membrane develops villi and

participates in development of placenta

Answer: A

Watch Video Solution

**29.** Accessory sexual character in a female is

promoted by:

A. Androgens

**B. Progesterone** 

C. Estrogens

D. Testosterone

Answer: C



30. Which hormone stimulates the secretion of milk

during sucking of milk by baby

Or

Which hormone is responsible for milk ejection after

an birth of the baby

A. Oxytocin

B. Progesterone

C. Prolactin

D. Estrogens

Answer: A



**31.** Setoli cells are found in testis. These cells are

A. Nurse cells

B. Reproductive cells

C. Receptor cells

D. None of these

Answer: A

**Watch Video Solution** 

32. Cryptorchidism is

A. Testes fail to descend in scrotal sacs

B. Sperms are not formed

C. Male hormones are not reactive

D. Ovaries are removed

Answer: A

Watch Video Solution

33. Layers of an ovum from outside to inside is

A. Corona radiata, zona pellucida & vitelline

membrane

B. Zona pellucida, corona radiata & vitelline

membrane

C. Vitelline membrane, zona pellucida & corona

radiata

D. Zona pellucida, vitelline membrane & corona

radiata

Answer: A

Watch Video Solution

**34.** Which germ layer developes first during embryonic development?

A. Ectoderm

- B. Mesoderm
- C. Endoderm
- D. Both (b) & (c)

## Answer: C



# 35. LH surge occurs during which phase of menstrual

cycle ?

A. Menstrual phase

B. At the beginning of proliferative phase

C. Just before the end of proliferative phase

D. At the middle of the cycle

Answer: D

**Watch Video Solution** 

**36.** Which one of the following statements is incorrect about menstruation?

A. At menopause in the female, there is especially

abrupt increase in gonadotropic hormones

B. The beginning of the menstruation cycle is

called menarche

C. During normal menstruation about 40 ml

blood is lost

D. The menstrual fluid can easily clot

Answer: D

**O** Watch Video Solution

**37.** Which extra-embryonic membrane in human prvents desiccation of the embryo inside the uterus?

A. Yolk sac

B. Amnion

C. Chorion

D. Allantois

Answer: B

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38. In humans, at the end of the first meiotic division,

the male germ cells differentiate into the

A. Spermatids

- B. Spermatogonia
- C. Primary spermatocyte
- D. Secondary spermatocyte

Answer: D

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39. Sertoli cells ar regulated by the pituitary hormone

know as

A. FSH

B. GH

C. Prolactin

D. LH

Answer: D

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# 40. Extra structure that provides nutrition to embryo

is

A. Umbilicus

B. Amnion

C. Chorion

# D. Placenta

# Answer: D



- **41.** Menstrual cycle is controlled by:
- 1. Estrogen and progesterone of ovary
- 2. FSH of pituitary
- 3. FSH and LH of pituitary
- 4. Oxytocin hormone
  - A. 1, 2 and 3 are correct
  - B. 1 and 2 are correct

- C. 2 and 4 are correct
- D. 1 and 3 are correct

#### Answer: D



- **42.** Correctly matched pairs are:
- 1. Clitoris -Erectile body in the female homologus to
- glans penis of male
- 2. Sexual intercourse Coitus
- 3. Colostrum Secretion found in seminal fluid
- 4. Areola Pigmented circular area around the nipple

A. 1, 2 and 3 are correct

- B. 1 and 2 are correct
- C. 2 and 4 are correct
- D.1 and 3 are correct

#### Answer: B

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**43.** Accessory sexual character in a female is promoted by:

A. Androgens

**B.** Progesterone

C. Estrogens

D. Testosterone

#### Answer: C

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44. Which hormone stimulates the secretion of milk

during sucking of milk by baby

Or

Which hormone is responsible for milk ejection after

an birth of the baby

A. Oxytocin

**B.** Progesterone

C. Prolactin

D. Estrogen

Answer: A

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45. Setoli cells are found in testis. These cells are

A. Germ cells

B. Nurse cells

C. Receptor cells

D. None of these

Answer: B

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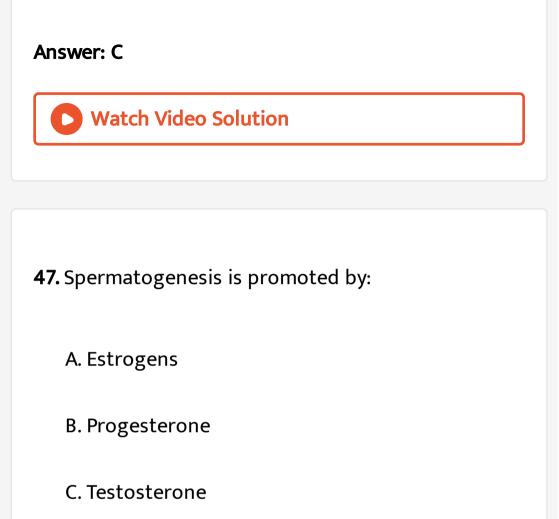
46. Spermatids are transformed into spermatozoa by

A. Spermiation

B. Spermatogenesis

C. Meiosis

D. Spermatosis



D. Oxytocin

Answer: C



48. Sperms move by:

A. Cilia

B. Flagellum

C. Basal body

D. Nucleosome

**Answer: B** 



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49. Sperms are produced in:

A. Seminiferous tubules

B. Interstitial cells

C. Epididymis

D. Prostate gland

Answer: A

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50. In oogenesis, haploid egg is ferrtilized by sperm

at which stage?

A. Primary oocyte

- B. Secondary oocyte
- C. Oogonium
- D. Ovum

Answer: B

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51. Which hormone level reaches peak during luteal

phase of menstrual cycle?

A. LH

**B.** Progesterone

C. PSH

D. Estrogens

**Answer: B** 

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**52.** A change in the amount of yolk and its distribution in the egg will affect.

A. Formation of zygote

B. Pattern of cleavage

C. Number of blastomeres produced

D. Fertilization

# Answer: B

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**53.** Foetal ejection reflex in human female is induced by:

A. Pressure exerted by amniotic fluid

B. Release of oxytocin from pituitary

C. Fully developed foetus and placenta

D. Differentiation of mammary glands



**54.** Which one of the following is the most likely reason of not occurring regular menstruation cycle in females?

A. Fertilization of ovum

B. Maintenance of hypertrophical endometrial

lining

C. Retention of corpus luteum

D. Maintenance of high concentration of sex

hormones in blood

Answer: A

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55. Seminal plasma of humans is rich in

A. Fructose, calcium and certain enzymes

B. Fructose and calcium but no enzyme

C. Glucose and certain enzymes but no calcium

D. Fructose and certain enzymes but poor in

calcium

Answer: A

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**56.** The correct sequence of spermatogenetic stages leading to the formation of sperms in a mature human testis is

A. Spermatocyte ightarrow spermatogonia ightarrow

spermatid  $\rightarrow$  sperms

B. Spermatogonia $ ightarrow$ spermatocyte	$\rightarrow$
spermatid $\rightarrow$ sperms	
C. Spermatid $ ightarrow$ spermatocyte	$\rightarrow$
spermatogonia $ ightarrow$ sperms	
D. Spermatogonia $ ightarrow$ spermatid	$\rightarrow$
spermatocyte $ ightarrow$ sperms	

Answer: B



**57.** Which one of the following is the correct matching of the events occuring during menstrual

cycle?

A. Ovulation -LH and FSH attain peak level and sharp fall in secretion of progesterone B. Proliferative phase-Rapid regeneration of myometrium and maturation of Graafian follicle C. Development of corpus luteum --Secretory phase and increased secretion of progesterone D. Menstruation - Breakdown of myometrium and ovum not fertilized

Answer: C



**58.** Which of the following hormones is secreted by implanted blastocyst, that acts on the corpus luteum in the ovary, stimulating the body to produce estrogens and progesterone to maintain the uterine lining?

A. Estrogen

B. HCG

C. Progesterone

D. Oxytocin

Answer: B





59. Among the following stem cells, which are found

in the umbilical cord?

A. Embryonic stem cells

B. Adult stem cells

C. Cord blood stem cells

D. All of the above

# Answer: C



**60.** 1st polar body is formed at which stage of oogenesis?

A. Ist meiosis

B. 2nd meiosis

C. Ist mitosis

D. Differentiation

Answer: A



61. Which one of the following gives nourishment to

spermatozoans?

A. Interstitial cells

B. Leydig cells

C. Sertoli cells

D. Gubernaculum

#### Answer: C

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**62.** Which germ layer developes first during embryonic development?

A. Ectoderm

- B. Mesoderm
- C. Endoderm
- D. Both (b) and (c)

# Answer: C



63. Phenomenal and rapid increase of population in a

short period is called :

A. Natural increase

B. Population growth

C. Population explosion

D. None of these

## Answer: C

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# **64.** Embryo developed from the somatic cells are called

A. Cybrid

B. Embryoid

C. Callus

D. Hybrid

#### Answer: B

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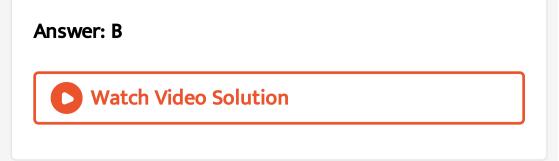
**65.** In vitro fertilization is a technique that involves transfer of which one of the following into the fallopian tube?

A. Embryo only, upto 8 cell stage

B. Either zygote or early embryo upto 8 cell stage

C. Embryo at 32-cell stage

D. Zygote only



66. Sertoli cells are found in

A. Ovaries and secrete progesterone

B. Seminiferous tubules and provide nutrition to

germ cells

- C. Adrenal cortex and secrete adrenaline
- D. Pancreas and secrete cholecystokinin

#### Answer: B





67. Vasa efferentia are the ductules leading from:

A. Testicular lobules to rete testis

B. Rete testis to vas deferens

C. Vas deferens to epididymis

D. Epididymis to urethra

**Answer: B** 



68. Seminal plasma in human males is rich in

A. Fructose and calcium

B. Glucose and calcium

C. DNA and testosterone

D. Ribose and potassium

#### Answer: A



**69.** The signals for parturition orginate from:

A. Placenta only

B. Placenta as well as fully developed foetus

C. Oxytocin released from maternal pituitary

D. Fully developed foetus only

Answer: B

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**70.** The first movements of the foetus and appearance of hair on its head are usually observed during which month of pregnancy ?

A. Fourth month

B. Fifth month

C. Sixth month

D. Third month

Answer: B

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71. The second maturation division of the mammalian

ovum occurs

A. Shortly after ovulation before the ovum makes

entry into the fallopian tube

B. Until after the ovum has been penetrated by a

sperm

C. Until the nucleus of the sperm has fused with

that of the ovum

D. In the Graafian follicle following the first

maturation division

Answer: B



72. Which one of the following statements about

morula in human is correct ?

A. It has almost equal amount of cytoplasm as an

uncleaved zygote but much more DNA

B. It has less cytoplasm as well as less DNA than in

an uncleaved zygote

C. It has more or less equal quantity of cytoplasm

and DNA as in uncleaved zygote

D. It has more cytoplasm and more DNA than an

uncleaved zygote

Answer: D

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73. The part of Fallopian tube closest to the ovary is:

A. Isthmus

B. Infundibulum

C. Cervix

D. Ampulla

Answer: B

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74. In human female the blastocyst:

A. Forms placenta even before implantation

B. Gets implanted into uterus three days after

ovulation

C. Gets nutrition from uterine endometrial

secretion only after implantation

D. Gets implanted in endometrium by trophoblast

cells

Answer: D



75. Secretions from which one of the following are

rich in fructode, calcium and some enzymes?

A. Male accessory glands

B. Liver

C. Pancreas

D. Salivary glands

#### Answer: A

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76. In oocyte secodary maturation occurs in

A. Ovary

B. Abdominal cavity

C. Fallopian tube

D. Uterus

#### Answer: C



**77.** A human female is born with a million of eggs (primary oocyte) at the time of birth but only some 500 eggs get a chance of maturiy. What is the destiny of rest of the eggs?

A. Rest of eggs differentiate back to thecal and

granulosa cells

B. Rest of eggs nurture the dominant follicular

cells

C. Rest of eggs move out of the ovary and are

destroyed by leucocytes

D. Rest of eggs break down and are absorbed i.e.

degenerative follicular atresia

Answer: D



78. What is present in the middle pieace of sperm?

## A. Acrosome

- B. Mitochondria
- C. Nucleus
- D. Proximal centricole

### Answer: B



79. In the absence of acrosome the sperm

A. Cannot penetrate the egg

B. Cannot get energy

C. Cannot get food

D. Cannot swim

Answer: A

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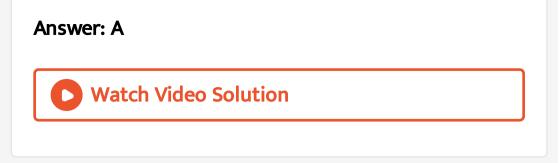
80. Gastrula has a pore which the know as

A. Blastopore

B. Gonophore

C. Zoospore

D. Oospore



**81.** Which one of the following glands is absent in reproductive system of rabbit

A. Cowper's gland

B. Collateral gland

C. Perineal gland

D. Prostate gland

. . . . . .

\_\_\_\_

**Answer: B** 



82. Which of the following induces parturition?

A. Vasopressin

B. GH

C. Oxytocin

D. TSH

Answer: C



83. Mammalian blastula is known as

A. Foetal blastula

B. Blastocyst

C. Trophoderm

D. Oolema

Answer: B



84. Acrosome of sperm contains

A. Hydrolytic enzymes

B. DNA

C. Mitochondria

D. Fructose

Answer: A

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85. Cavity formed during gastrulation is

A. Archenteron

B. Gastrocoel

C. Primitive gut

D. All of these

Answer: D

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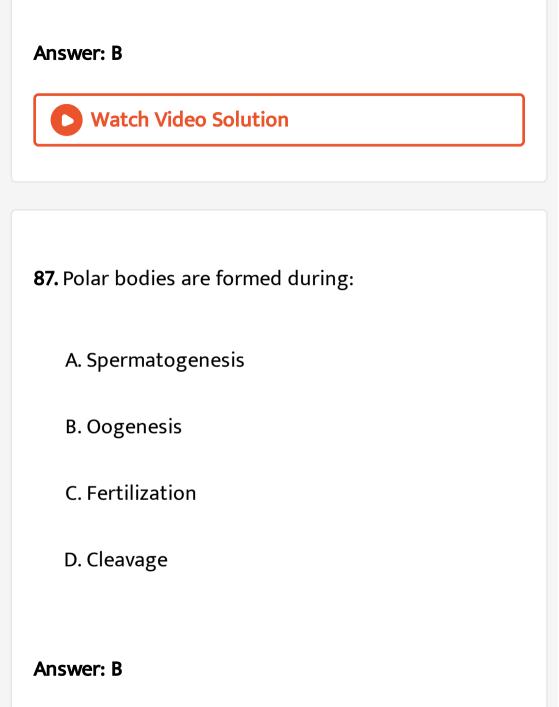
86. Leydig's cells are found in:

A. Ovary

B. Testis

C. Prostate

D. Liver



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88. Human chorionic gonadotrophin is secreted by

A. Chorion

B. Amnion

C. Corpus luteum

D. Placenta

Answer: D



89. The process of delivery of the foetus is called

A. Parturition

**B.** Implantation

C. Fertilization

D. Lactation

Answer: A

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**90.** In human the unpaired male reproductive structure is

A. Seminal vesicle

**B.** Prostate

C. Bulbourethral gland

D. Testes

Answer: B

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91. In humans the oocyte is maintained in a state of

meiotic arrest by the secretion of

A. Granulosa cells

B. Zona pellucida

C. Cumulus oophorus

D. Theca

Answer: A

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**92.** The ciliated columnar epithelial cells in humans are known to occur in

A. Eustachian tube and stomach lining

B. Bronchioles and fallopian tubes

C. Bile duct and oesophagus

D. Fallopian tubes and urethra

### Answer: B

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**93.** If for some reason the vasa efferentia in the human reproductive system get blocked . The gametes will not be transported from

A. Testes to epididymis

B. Epididymisto vas deferens

C. Ovary to uterus

D. Vagnia to uterus

### Answer: B



**94.** The testes in humans are situated outside the abdominal cavity inside a pouch called scrotum. The purpose served is for

A. Maintaining scrotal temperature lower than

the internal body temperature

B. Escaping any possible compression by the visceral organs

C. Providing more space for the growth of

epididymis

D. Providing a secondary sexual feature for

exhibiting the male sex

Answer: A

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95. The principal tail piece of human sperm shows the

microtubular arrangement of

B. 9+2

C. 11+2

D. 13+2

Answer: B

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96. Mother's milk during initial days of lactation is

rich in antibodies:

A. IgA

B. IgG

C. IgM

D. lgE

Answer: A



**97.** The main function of the fimbriae of the Fallopian tube in females is to:

A. Release ovum from Graafian follicle

B. Make necessary changes in endometrium for

implantation

C. Help in development of corpus luteum

D. Help in collection of ovum after ovulation

Answer: D

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**98.** Which one of the following is not a placental hormone?

A. HCG

B. HCS

C. Progesterone

D. Melatonin

### Answer: D

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99. Sperm acrosome is derived from

A. Golgi body

B. Endoplasmic reticulum

C. Lysosome

D. Mesosome

**Answer: A** 



**100.** Acrosome is a type of:

A. Ovary

B. Testis

C. Sperm

D. Egg

Answer: C



101. Beginning of menstruation is called

A. Menarche

B. Menopause

C. Ovulation

D. Oogenesis

**Answer: A** 



**102.** Spermatozoa get nutrition from:

A. Sertoli cells

B. Ovary

C. Acrosome

D. Leydig cells

Answer: A

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**103.** Menstrual cycle is repeated at an average interval of:

A. 15 days

B. 20 days

C. 28/29 days

D. One year

Answer: C

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104. Interstitial cells are also called :

A. Leydig's cells

B. Sertoli cells

C. Testicular lobules

# D. All of these

### Answer: A

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**105.** The endometrium is the lining of:

A. Bladder

B. Vagina

C. Uterus

D. Fallopian tube

Answer: C



# 106. At the time of implanation, the human embyro is

called

A. Embryo

B. Blastocyst

C. Zygote

D. Foetus

**Answer: B** 

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**107.** Which of the following organs is devoid of glands?

A. Uterus

B. Vagina

C. Vulva

D. Oviduct

Answer: D



**108.** Primary spermatocyte differs from

spermatogonium in

A. Number of chromosomes

B. Size and volume

C. DNA amount

D. Size of chromosomes

**Answer: B** 



**109.** The best definition of gastrulation is:

A. Single layered blastula becomes two layered

B. Archenteron is formed

C. Cells move to occupy their definite position

D. Zygote gets converted into larva

Answer: C

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110. Ovum receives the sperm in the region of

A. Animal pole

B. Vegetal pole

C. Equator

D. Pigmented area

Answer: A

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**111.** In human beings, normally in which one of the following, parts does the sperm fertilise the ovum ?

A. Cervix

B. Fallopian tube

C. Lower part of uterus

D. Upper part of uterus

### Answer: B



**112.** Number of autosomes in human primary

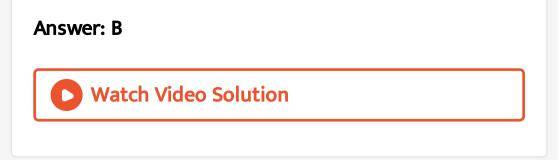
spermatocyte is

A. 46

B.44

C. 23

D. 22



**113.** which one of the following statements is false in respect of viability of mammalian sperm ?

A. Sperm is viable for only 24 hours

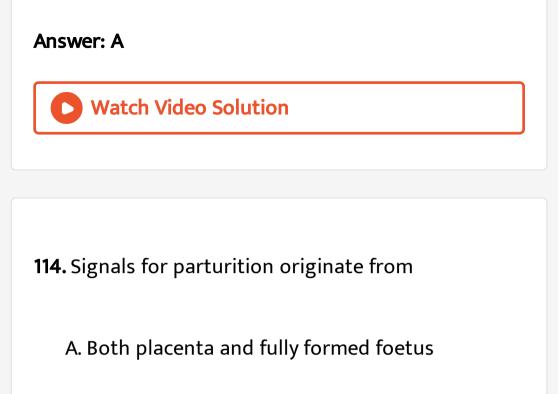
B. Survival of sperm depends on pH and is more

active in alkaline medium

C. Viability of sperm is determined by its motility

D. Sperms must be concentrated in a thick

suspension



- B. Oxytocin released from maternal pituitary
- C. Placenta only
- D. Fully developed foetus only

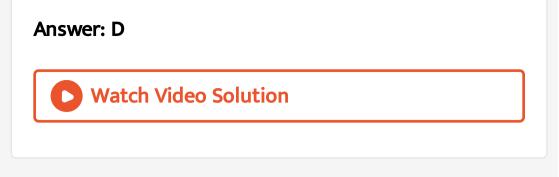
Answer: A



**115.** In a normal pregnant woman, the amount of total gonadotropin activity was assessed. The result expected was

A. High level of circulating FSH and LH in the uterus to stimulate implantation of the embryo B. High level of circulating hCG to stimulate endometrial thickening C. High level of FSH and LH in uterus to stimulate endometrial thickening D. High level of circulating hCG to stimulate

estrogen and progesterone synthesis



# 116. The Leyding cells as found in the human body are

### the secretory source of

A. Progesterone

**B.** Intestinal mucus

C. Glucagon

D. Androgens

#### Answer: D



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**117.** In human females, the ovarian cycle begains when the:

A. Level of estrogens reaches the maximum

B. Hypothalamus stimulates the anterior pituitary

to increase its output of FSH and LH

C. Level of progesterone drops

D. Hypothalamus increases its increase of FSH and

LH

### Answer: C





**118.** Sperm of animal species a cannot fertilise ovum

of species b because

A. Fertilizin of A and antifertilizin of B are not

compatible

B. Antifertilizin of A and fertilizin of Bare not

compatible

C. Fertilizin of A and B are not compatible

D. Antifertilizin of A and B are not compatible

Answer: B



**119.** Which of the following is responsible for nourishing the developing sperm?

A. Sertoli cells

B. Leydig's cells

C. Granulosa cells

D. Corpus luteum

Answer: A



120. Site of fertilization in mammal is

A. Cervix

B. Uterus

C. Vagina

D. Fallopian tube

#### Answer: D



121. Ovulation occurs under the influence of:

B. FSH

C. Estrogen

D. Progesterone

Answer: A

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122. Ascrosome reaction is sperm is triggered by

A. Release of fertilizin

B. Release of lysin

C. Capacitation

D. Influx of Nain sperm

#### Answer: B

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**123.** Middle piece of mammalian sperm possesses

A. Mitochondria and centrioles

B. Mitochondria only

C. Centrioles only

D. Nucleus and mitochondria a Board

Answer: B



# **124.** What is the correct sequence of sperm formation?

A. spermatid, spermatocyte, spermatogonia,

spermatozoa

B. spermatogonia, spermatocyte, spermatozoa,

spermatid

C. spermatogonia, spermatozoa, spermatocyte,

spermatid

D. spermatogonia, spermatocyte, spermatid,

spermatozoa

Answer: D

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125. Menstrual cycle occurs due to lack of:

A. Progesterone

B. FSH

C. Oxytocin

D. Vasopressin



**126.** Which one of the following is not the function of placenta?It:

A. facilitates supply of oxygen and nutrients to

embryo

B. secretes estrogens

C. facilitates removal of  $CO_2$  and waste materials

from embryo

D. secretes oxytocin during parturition



**127.** Which of the following is not a function of progesterone?

A. Gestation

B. Inhibition of ovulation

C. Uterine growth and development

D. Stimulation of mammary secretion

Answer: A

. . . . . . . .



128. Ontogenetically liver and pancreas are

A. Ectodermal

B. Mesodermal

C. Endodermal

D. None of these

Answer: C



**129.** GnRH secreted from hypothalamus mainly stimulate the release of:

A. Thyroxine from thyroid gland

B. ADH from posterior pituitary

C. FSH and LH from anterior pituitary

D. Aldosterone from adrenals

Answer: C



130. Site of fertilization in mammal is

A. Ovary

B. Uterus

C. Vagina

D. Fallopian tube

#### Answer: D

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**131.** The number of chromosomes in human beings is:

A. 4 pairs

B. 22 pairs

C. 23 pairs

D. 24 pairs

Answer: C

**Watch Video Solution** 

132. The shared terminal duct of the reproductive and

urinary system in the human male is

A. Urethra

B. Ureter

C. Vas deferens

D. Vasa efferentia

#### Answer: A

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133. The main function of mammalian corpus luteum

is to produce

A. Estrogen only

**B.** Progesterone

C. Human chorionic gonadotropin

D. Relaxin only

#### Answer: B



**134.** Select the correct option describing gonadotropin activity in a normal pregnant female

A. High level of FSH and LH stimulates the

thickening of endometrium

B. High level of FSH and LH facilitate implantation

of the embryo

C. High level of hCG stimulates the synthesis of

estrogen and progesterone

D. High level of hCG stimulates the thickening of

endometrium

Answer: C

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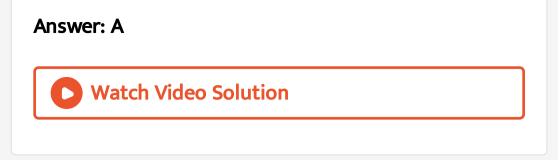
**135.** The first phase of embryonic development is:

A. Cleavage

**B. Blastulation** 

C. Gastrulation

**D.** Placentation



**136.** Acrosome of sperm is found in

A. Head

B. Neck

C. Middle piece

D. Tail

Answer: A



137. Sertoli cells occur:

A. Between the seminiferous tubules

B. In germinal epithelium of seminiferous tubules

C. In upper part of fallopian tubes

D. In germinal epithelium of ovary

**Answer: B** 



138. First menstruation in human female is called:

A. Menopause

B. Menarche

C. Both a and b

D. None of these

Answer: B

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139. In man, the sperms are produced in:

A. Seminiferous tubules

B. Vasa efferentia

C. Rete testis

D. Vas deferens

Answer: A

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140. Estrous cycle occurs in

A. Cow and monkey

B. Monkey and apes

C. Cow and sheep

D. Rat and human



**141.** Glans penis is covered by a loose fold of skin called

A. Infundibulum

**B.** Prepuce

C. Perimetrium

D. Myometrium

**Answer: B** 



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# 142. Corpus luteum secretes

A. LH

**B. Estrogens** 

C. Progesterone

D. FSH

Answer: C



**143.** At which stage, the implantation in uterus takes place?

A. 8-cell stage

B. Morula

C. Blastocyst

D. Late gastrula

Answer: C



**144.** Capacitation refers to changes in the

A. Sperm before fertilization

- B. Ovum before fertilization
- C. Ovum after fertilization
- D. Sperm after fertilization

#### Answer: A



145. Which of these is not an important components

of initiation of parturition in humans?

A. Increase in estrogen and progesterone ratio

B. Synthesis of prostglandins

C. Release of oxytocin

D. Release of prolactin

#### Answer: D

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# **146.** Which of the following cells during gametogenesis is normally diploid?

A. Primary polar body

B. Spermatid

### C. Spermatogonia

D. Secondary polar body

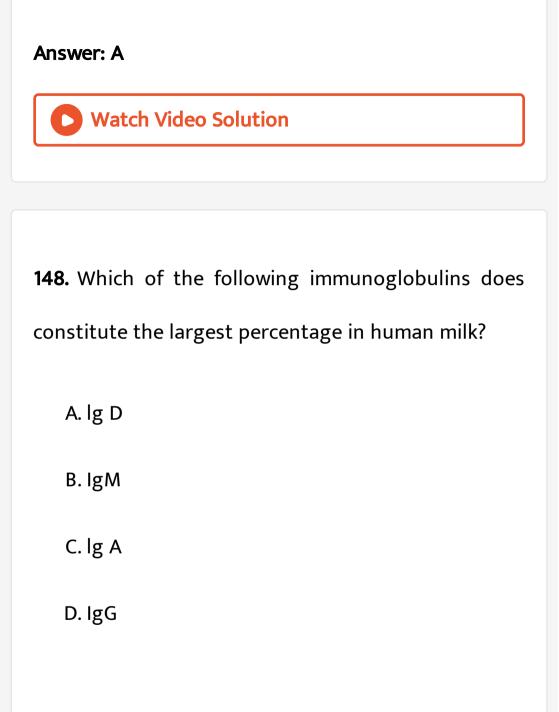
#### Answer: C



# 147. Hysterectomy is surgical removal of:

A. Uterus

- B. Prostate gland
- C. Vas deferens
- D. Mammary glands



#### Answer: C





**149.** Ectopic pregnancies are referred to as

A. Pregnancy with genetic abnormality

B. Implantation of embryo at site other than

uterus

C. Implantation of defective embryo in uterus

D. Pregnancies terminated due to hormonal

imbalance

Answer: B



**150.** Which of the following events is not associated with ovulation in human female?

A. Decrease in estradiol

B. Full development of Graafian follicle

C. Release of secondary oocyte

D. LH-surge

Answer: A



151. Which of the following layers in an antral follicle

is acellular?

A. Granulosa

B. Theca interna

C. Stroma

D. Zona pellucida

Answer: D



**152.** In human females, meiosis-II is not completed until

A. Puberty

**B.** Fertilization

C. Uterine implantation

D. Birth

Answer: B



**153.** Each secondary spermatocyte after second meiotic division produces

A. Four haploid spermatids

B. Only one haploid spermatid

C. Two haploid spermatids

D. Two diploid spermatics

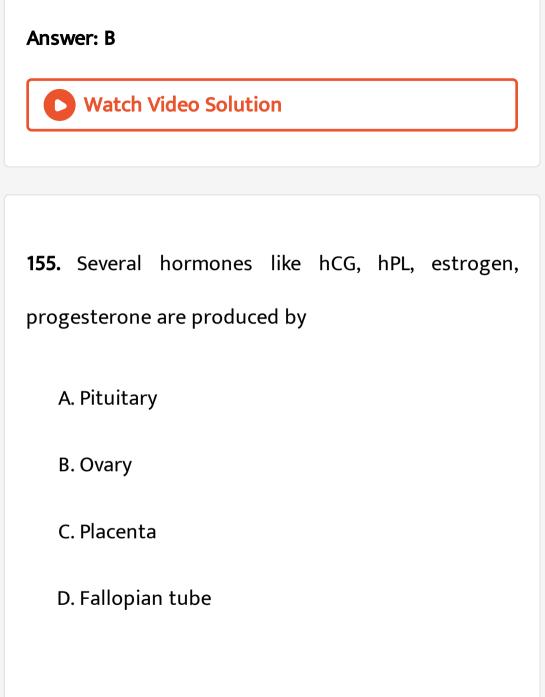
Answer: C



154. Which of the following depicts the correct pathway of transport of sperms A. Efferent ductules  $\rightarrow$  Rete testis  $\rightarrow$  Vas deferens  $\rightarrow$  Epididymis B. Rete testis  $\rightarrow$  Efferent ductules  $\rightarrow$ Epididymis  $\rightarrow$  Vas deferens C. Rete testis  $\rightarrow$  Epididymis  $\rightarrow$  Efferent ductules  $\rightarrow$  Vas deferens

D. Rete testis  $\rightarrow$  Vas deferens  $\rightarrow$  Efferent

ductules  $\rightarrow$  Epididymis



#### Answer: C





156. Fertilization in humans is practically feasible only

if:

A. Sperms are transported into cervix within 48

hours of release of ovum

B. Sperms are transported into vagina just after

the release of ovum in the fallopian tube

C. Ovum and sperms are transported

simultaneously to ampullary-isthmic junction of

the fallopian tube

ampullary-isthmic junction of the cervix

Answer: C

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157. Identify the correct statement on " inhibin "

A. Is produced by nurse cells in testes and inhibits

secretion of LH

B. inhibits the secretion of LH, FSH and Prolactin

C. Is produced by granulosa cells in ovary and

inhibits secretion of FSH

D. Is produced by granulosa cells in ovary and

inhibits secretion of LH

Answer: C



158. Changes in GnRH pulse frequency in females is

controlled by circulating levels of

A. Progesterone and inhibin

B. Estrogens and progesterone

C. Estrogens and inhibin

D. Progesterone only

Answer: B

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**159.** Select the incorrect statement:

A. LH triggers secretion of androgens from the

Leydig cells

B. PSH stimulates the sertoli cells which help in

spermiogenesis

C. LH triggers ovulation in ovary

D. LH and FSH decrease gradually during the

follicular phase

Answer: D

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160. Corpus luteum secretes

## A. LH

B. FSH

C. Estrogens

D. Progesterone

Answer: D

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161. The sperm gets matured in:

A. Testis

B. Leydig's cell

C. Female genital tract

# D. Vas deferens

# Answer: C

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162. How many sperms are formed from a secondary

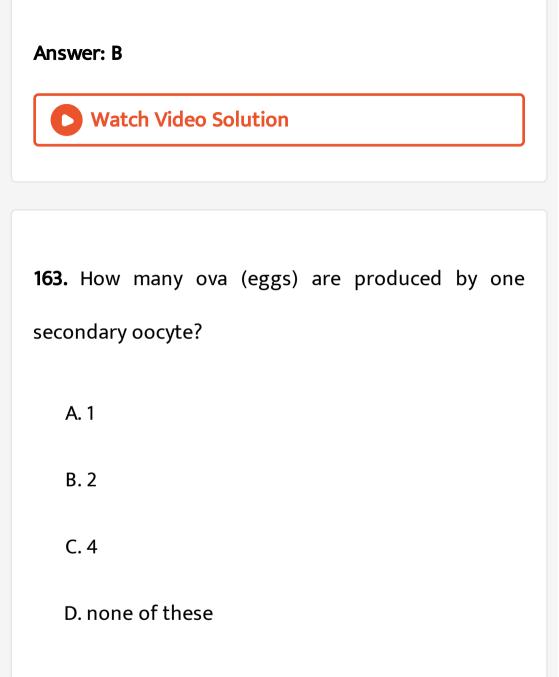
spermatocyte?

A. 1

B. 2

C. 4

D. none of these



#### **Answer: A**





164. In which of the following, the enzyme helping in

fertilization is present?

A. Acrosome

B. Neck

C. Middle Piece

D. Tail

**Answer: A** 

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165. In humans, placenta is derived from

A. Amnion

**B. Allantois** 

C. Chorion

D. Allantois and chorion

Answer: C

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**166.** Menstrual cycle occurs due to lack of:

A. Estrogen

B. Progesterone

C. FSH

D. Oxytocin

Answer: B

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167. Corpus luteum secretes

A. LH

B. Estrogen

C. Progesterone

D. FSH

#### Answer: C

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168. Capacitation occurs in

A. Rete testis

B. Epididymis

C. Vas deferens

D. Female Reproductive tract

Answer: D



# **169.** GnRH, a hypothalamic hormone , needed in reproduction , acts on

A. Anterior pituitary gland and stimulates
secretion of LH and oxytocin
B. Anterior pituitary gland and stimulates
secretion of FSH and LH
C. Posterior pituitary gland and stimulates
secretion of oxytocin and PSH

D. Posterior pituitary gland and stimulates

secretion of LH and relaxin

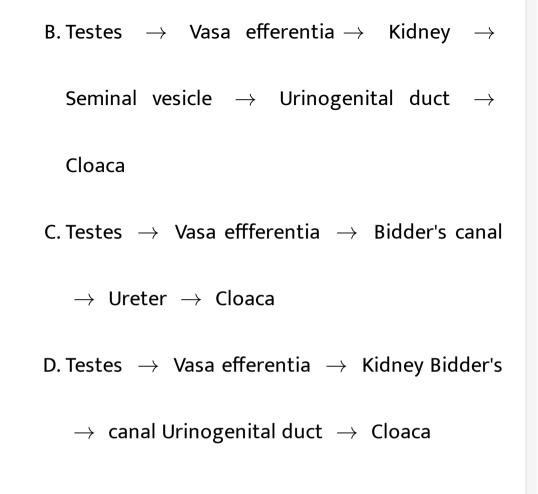
Answer: B

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**170.** Select the correct route for the passage of sperms in male frogs

A. Testes  $\rightarrow$  Bidder's canal  $\rightarrow$  Kidney  $\rightarrow$  Vasa

efferentia  $\rightarrow$  Urinogenital ductti Cloaca



#### Answer: D



171. Embryo at 16-celled stage is called

A. Morula

B. Gastrula

C. Blastula

D. Blastomere

Answer: A



172. Testosterone is secreted by

A. Sertoli cells

B. Leydig's cells

C. Seminiferous tubules

D. Spermatogonial cell

Answer: B

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173. In human being, the developing embryo resides

in:

A. Fallopian tube

B. Uterus

C. Ovary

D. Vagina

Answer: B



174. Sertoli cells are:

A. Nurse cells

B. Reproductive cells

C. Receptor cells

D. None of these

#### Answer: A



175. Hormones secreted by the placenta to maintain

pregnancy are

A. hCG, PL, progestrogens, prolactin

B. hCG, HPL progestrogens, estrogens

C. hCG, PL, estrogens, relaxin, oxytocin

D. hCG, progestrogens, estrogens, glucocorticoids



**176.** The amnion of mammalian embryo is derived from

- A. Ectoderm and mesoderm
- B. Mesoderm and trophoblast
- C. Endoderm and mesoderm
- D. Ectoderm and endoderm

### Answer: A



**177.** The difference between spermiogenesis and spermiation is

A. In spermiogenesis spermatids are formed, while
in spermiation spermatozoa are formed
B. In spermiogenesis spermatozoa from sertoli
cells are released into cavity of seminiferous
tubules, while in spermiation spermatozoa are
formed

C. In spermiogenesis spermatozoa are formed, while in spermiation spermatids are formed D. In spermiogenesis spermatozoa are formed,

while in spermiation spermatozoa are released

from sertolicells into cavity of seminiferous

tubules

Answer: D

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**178.** Select the correct sequence for transport of

sperm cells in male reproductive system.

A. Testis Epididymis  $\rightarrow$  Vasa efferentia  $\rightarrow$  Rete testis to Inguinal canal to` Urethra B. Seminiferous tubules Rete testis  $\rightarrow$  Vasa efferentia  $\rightarrow$  Epididymis  $\rightarrow$  Vas deferens Ejaculatory duct  $\rightarrow$  Urethra  $\rightarrow$  Urethral meatus C. Seminferous tubules  $\rightarrow$  Vasa efferentia  $\rightarrow$ Epididymis  $\rightarrow$  Inguinal canal `to Urethra D. Testis  $\rightarrow$  Epididymis  $\rightarrow$  Vasa efferentia  $\rightarrow$ Vas deferens  $\rightarrow$  Ejaculatory duct  $\rightarrow$  Inguinal canal Urethra  $\rightarrow$  Uretheral  $\rightarrow$  meatus.





**179.** Extrusion of second polar body from egg nucleus

occurs

- A. After entry of sperm but before fertilization
- B. After fertilization
- C. Before entry of sperm into ovum
- D. Simultaneous with first cleavage

\_\_\_\_

#### Answer: A



180. Mammary glands are modified

A. Sweat glands

B. Lacrymal glands

C. Sabaceous glands

D. Endocrine glands

Answer: A



**181.** Beginning of first menstruation is called:

A. Menarch

**B.** Capacitation

C. Menopause

D. None of these

Answer: A

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**182.** Empty Graafian follicle transforms into:

A. Egg nest

B. Primary follicle

C. Ovum

D. Corpus luteum

Answer: D

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183. Cessation fo menstrual cycle in a woman is called

A. Menopause

**B.** Ovulation

C. Oogenesis

D. None of these

Answer: A

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Competition File Objective Type Questions B Match Type Question

1. Match the terms in Column A with suitable terms in

Column B :



**2.** Match the terms in Column A with suitable terms in Column B :





# 3. Mathc the columns A and B





 Assertion: The third cleavage in frog is latitudinal Reason: The mitotic spindle orients parallel to the polar axis.

A. If both Assertion and Reason are true and Reason is correct explanation of Assertion.
B. If both Assertion and Reason are true but Reason is not correct explanation of Assertion
C. If Assertion is true but Reason is false
D. If both Assertion and Reason are false





**2.** Assertion: The development in cockroach is heterometabolous metamorphosis.

Reason: Young ones resemble the adults in all characters.

A. If both Assertion and Reason are true and

Reason is correct explanation of Assertion.

B. If both Assertion and Reason are true but

Reason is not correct explanation of Assertion

C. If Assertion is true but Reason is false

D. If both Assertion and Reason are false

Answer: D

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**3.** A : in morula stage the cells divide without any increase in size

R : zona pellucida remains intact till cleavage is completed

A. If both Assertion and Reason are true and

Reason is correct explanation of Assertion.

B. If both Assertion and Reason are true but

Reason is not correct explanation of Assertion

C. If Assertion is true but Reason is false

D. If both Assertion and Reason are false

Answer: C

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**4.** A : in morula stage the cells divide without any increase in size

R : zona pellucida remains intact till cleavage is completed

A. If both Assertion and Reason are true and

Reason is correct explanation of Assertion.

B. If both Assertion and Reason are true but

Reason is not correct explanation of Assertion

C. If Assertion is true but Reason is false

D. If both Assertion and Reason are false

Answer: B



5. Assertion: Holoblastic cleavage with almost equal

sized blastomeres is a characteristic of placental

animals.

Reason: Eggs of most mammals, including humans, are of centrolecithal type.

A. If both Assertion and Reason are true and

Reason is correct explanation of Assertion.

B. If both Assertion and Reason are true but

Reason is not correct explanation of Assertion

C. If Assertion is true but Reason is false

D. If both Assertion and Reason are false

Answer: D

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**6.** Assetion : Cattle breeds can be improved by superovulaton and embryo transplantaion.

Reason : Superovulation in high milk-yielding cows is induced by hormonal injection.

A. If both Assertion and Reason are true and Reason is correct explanation of Assertion. B. If both Assertion and Reason are true but Reason is not correct explanation of Assertion C. If Assertion is true but Reason is false D. If both Assertion and Reason are false

Answer: B



**7.** Assertion (A) Generally, a woman do not conceive during lactation period.

Reason (R)the hormone prolactin initiates and maintains lacation in a woman.

A. If both Assertion and Reason are true and Reason is correct explanation of Assertion.
B. If both Assertion and Reason are true but Reason is not correct explanation of Assertion
C. If Assertion is true but Reason is false D. If both Assertion and Reason are false

#### **Answer: B**



**8.** Assertion: Mammalian ova produces hyaluronidase. Reason: The eggs of mammal are microlecithal and telolecithal.

A. If both Assertion and Reason are true and Reason is correct explanation of Assertion.B. If both Assertion and Reason are true but Reason is not correct explanation of Assertion C. If Assertion is true but Reason is false

D. If both Assertion and Reason are false

Answer: D

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**9.** Select the correct option Assertion Q. due to fragmentation in Planaria, each part develops the remaining body parts and becomes a complete animal Reason R. Differentiated tissue present in each broken part of Planaria undergoes dediferentiation and then differentiation in regeneration.

A. If both Assertion and Reason are true and

Reason is correct explanation of Assertion.

B. If both Assertion and Reason are true but

Reason is not correct explanation of Assertion

C. If Assertion is true but Reason is false

D. If both Assertion and Reason are false

Answer: A



Chapter Practice Test Section A Multiple Choice Question 1. Number of secondary spermatocytes required to

produce 200 spermatozoa are:

A. 50

B. 100

C. 150

D. 200

Answer: B



**2.** Which of the following are present in germinal epithelium of seminiferous tubules?

A. Sertoli cells

B. Leydig's cells

C. Antral cells

D. Follicular cells

Answer: A



3. Which of the following is called the power house of

a sperm?

A. Acrosome

**B.** Nucleus

C. Middle piece

D. Tail

Answer: C



**4.** Ovulation in human female is induced by hormone:

A. Estrogens

**B.** Prolactin

C. Progesterone

D. Luteinizing hormone

Answer: D



**5.** The release of sperms from the seminiferous tubules is called:

A. Spermatogenesis

B. Spermiogenesis

C. Spermiation

D. Spermioteliosis

Answer: C



**6.** Milk ejection from the mammary glands is induced by:

A. Prolactin

B. Oxytocin

C. Vasopressin

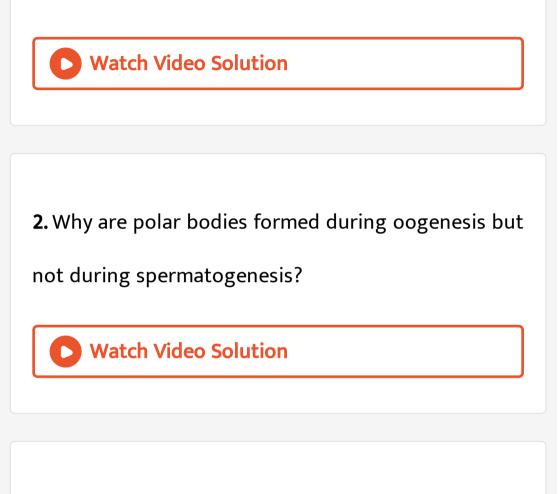
D. Prolactin releasing hormone

**Answer: B** 



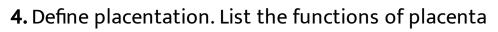
Chapter Practice Test Section B Short Answer Type I

1. Define fertilisation. Give significance of fertilisation



3. What is colostrum? State its importance

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5. Differentiate between menarche and menopause.
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Chapter Practice Test Section C Short Answer Type li
1. Define menstrual cycle. Differentiate between
follicular phase and secretory phase of a menstrual
cycle.



2. (a) Read the graph given below. Correlate the ovarian events that take place in the human female according to the levels of the pituitary hormone during the following days:

(i) 10 - 14 days (ii) 14 - 15 days (iii) 16-23 days (iv) 25 - 29

days (if the ovum is not fertilised)

(b) What are the uterine events that follow beyond 29th day if the ovum is not fertilised

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3. Draw a well labelled diagram of T.S. ovary of human

female.



**4.** Write short notes on following events of the process of fertilisation:

(i) Penetration of sperm into ovum. (ii) Cortical

reaction of the ovum.



5. With reference to the above schematic representation of (a) Spermatogenesis and (b)
Oogenesis answer the following questions:
(a) About 300 million spermatozon may be present in

a human male ejaculation at one time. Calculate how many spermatocytes will be involved to produce 300 spermatozoa. (b) How many chromatids are found during Oogenesis in (i) Primary oocyte and (ii) First polar body in a human female?



## **View Text Solution**

Chapter Practice Test Section D Long Type Question

**1.** (a) Describe the histological structure of human testis with the help of a labelled diagram. (b) Discuss the significance of extra-abdominal location of testes.



- 2. Write short notes on the following:
- (a) Formation of blastocyst. (b) Implantation of

blastocyst.

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