



# **BIOLOGY**

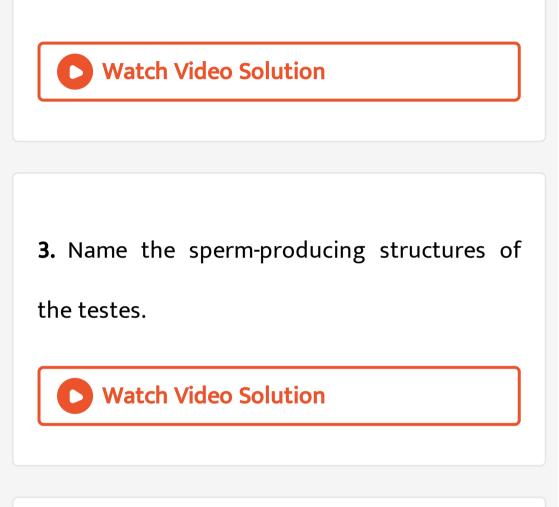
# **BOOKS - MBD**

# **HUMAN REPRODUCTION**



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

**2.** What is the function of scrotal sacs?



4. Name the endocrine cells of the testes.

5. Name three parts of epididymis.

Watch Video Solution

**6.** Why is urethra of male called urinogenital canal?



7. What is ovulation ? Where does it occur ? What is formed from the Graafian follicle after ovulation ?



## 8. What is corpus luteum? Give its function.



9. Name the aperture of fallopian funnel which

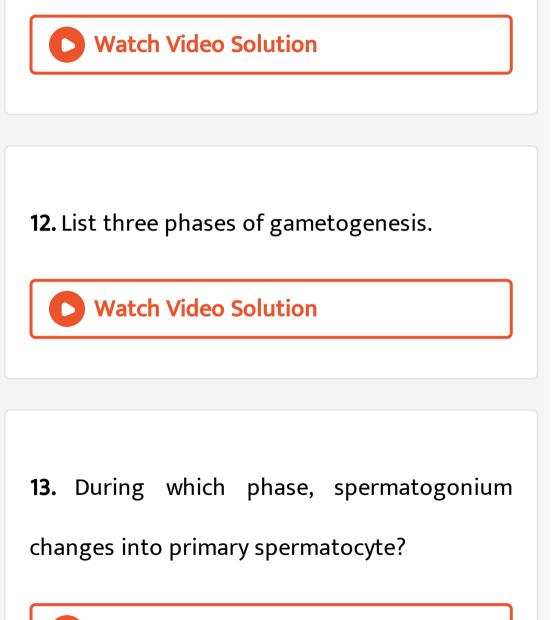
receives the ovum released from the ovary in humans.



10. Which part of female genital tract acts as

womb?

**11.** Name two types of gametogenesis.



**14.** Name the phase of spermatogenesis during which meiosis occurs.



#### 15. Define spermiogenesis.



16. Which cellular structure of spermatid forms

the acrosome?

**Watch Video Solution** 

**17.** What is the function of Sertoli cells?

Watch Video Solution

**18.** What is atresia?

19. Define vitellogenesis. During which phases

of oogenesis does it occur?



## 20. Urethral meatus refers to external opening

of.....

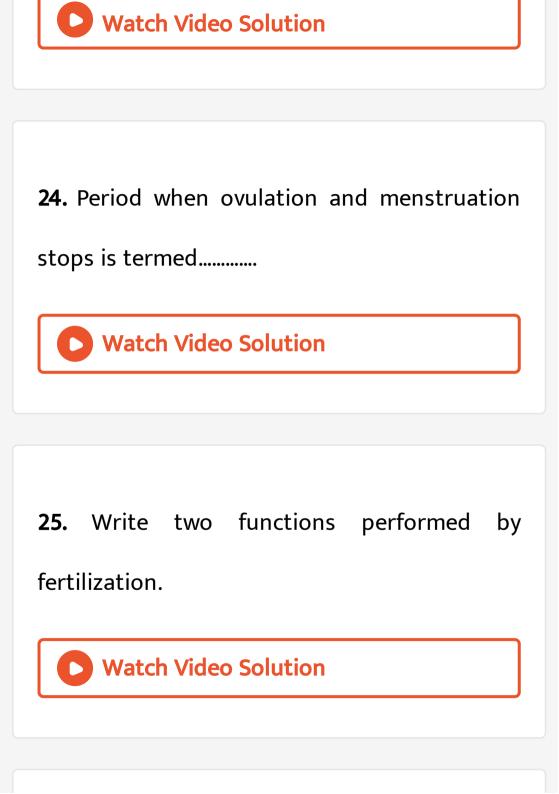
21. Name the hormone which control ovulation.
Watch Video Solution

22. Coin the term for periodic vaginal bleeding

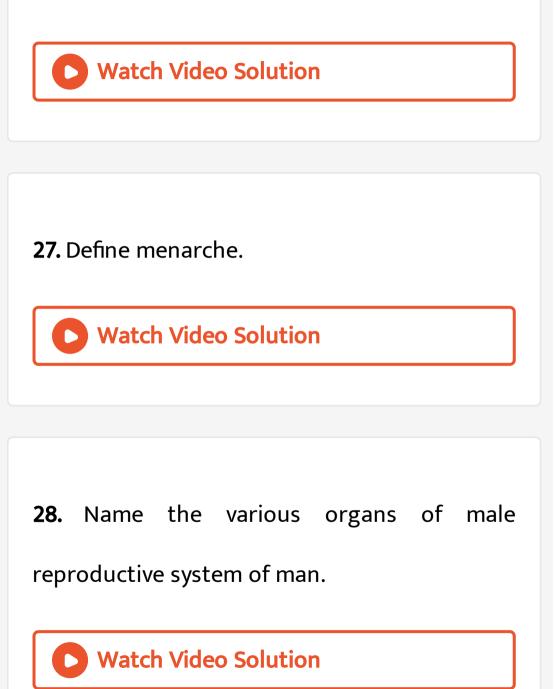
in human female.



23. Menstrual phase last for how many days?



## 26. What is cleavage?



**29.** Draw labelled diagram of female reproductive system.

Watch Video Solution

**30.** Fill in the blanks:

The process of release of ovum from a mature

follicle is called.....

**31.** Fill in the blanks:

Ovulation is induced by a hormone called......



**32.** Fill in the blanks:

The fusion of male and female gametes is called......



**33.** Fill in the blanks:

Fertilization takes place......

Watch Video Solution

**34.** Fill in the blanks:

Zygote divides to form......which is implanted

in uterus.

**35.** Fill in the blanks:

The structure which provides vascular connection between foetus and uterus is called......

Watch Video Solution

36. Write two major functions each of testis

and ovary.

37. Describe the structure of seminiferous

tubule.



**38.** What is spermatogenesis ? Briefly describe the process of spermatogenesis inhuman male.

39. Give the diagrammatic representation of

spermatogenesis in human male.

Watch Video Solution

40. Name the hormones involved in regulation

of spermatogenesis?

Watch Video Solution

41. Define spermiogenesis.



42. Draw diagram of human sperm and label

four parts.

**Watch Video Solution** 

43. What is the major composition of seminal

fluid ?

44. What are the major functions of male accessory ducts and glands?
Watch Video Solution
45. Draw a labelled diagram of section

through ovary showing various stages of

follicles growing in it.

46. What is Oogenesis ? Briefly describe the

process of Oogenesis in human female.

Watch Video Solution

47. Give a schematic representation showing

events of oogenesis in human female.



**48.** When and where are primary oocytes formed in a human female? Trace the development of these oocytes till ovulation (in menstrual cycle). How dogonadotropins influence this developmental process?

**Watch Video Solution** 

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

**50.** Write the functions of :

Corpus luteum



**51.** Name the functions of the following:

endometrium

**52.** Name the functions of the following:

acrosome

Watch Video Solution

**53.** Name the functions of the following:

sperm tail

**54.** Write the functions of :

Fimbriae

Watch Video Solution

**55.** Identify True/False statements:

Androgens are produced by Sertoli cells.

**56.** Identify True/False statements:

Spermatozoa get nutrition from Sertoli cells.

Watch Video Solution

**57.** Identify True/False statements:

Leyding cells are found in ovary.

**58.** Identify True/False statements:

leydig cells synthesize androgens.



**59.** Identify True/False statements:

Oogenesis takes place in corpus luteum.



**60.** Identify True/False statements:

Menstrual cycle ceases during pregnancy.

Watch Video Solution

**61.** Identify True/False statements:

Presence or absence of hymen is not a reliable

indicator of virginity or sexual experience.



62. Define menstrual cycle. Name any two hormones which regulate this process.
Watch Video Solution

63. What is parturition ? Name the hormone

involved in induction of parturition.



64. In our society women are often blamed for

giving birth to daughters. Can you explain why

this is not correct ?



**65.** Given below are the events in human reproduction. Write them in correct sequential order:

Insemination, gametogenesis, fertilisatgion, parturition, gestation, implantation.



**66.** During the process of fertilization the pollen tube of the pollen grain usually enters the embryo sac through

A. a. integument

B. b. nucellus

C. c. chalaza

D. d.micropyle

#### Answer:





## 67. What is the role of cervix in human female

reproductive system?

**Watch Video Solution** 

68. Why are menstrual cycles absent during

pregnancy?

**69.** 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, it provides?

Watch Video Solution

**70.** From where the parturition signals arise mother or foetus? Mention the main hormone involved in parturition.

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



## 72. Name the hormones involved in regulation

of spermatogenesis?

**73.** The total number of nuclei involved in double fertilisation in angiosperm are

A. a. two

B. b. three

C. c. four

D. d. five

**Answer:** 

74. During reproduction, the chromosome number (2n) reduces of 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?

**Watch Video Solution** 

75. What is the difference between a primary

oocyte and a secondary oocyte?

**76.** What is the significance of ampullary isthmic junction in the female reproduction tract?

Watch Video Solution

77. How does zona pelucida of ovum help in

preventing polyspermy?

**78.** Mention the importance of LH surge during

menstrual cycle.



**79.** Which type of cell division forms

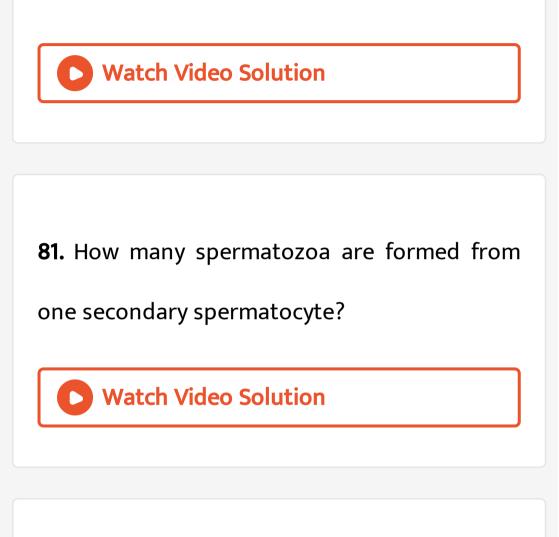
spermatids from secondary spermatocytes?

Watch Video Solution

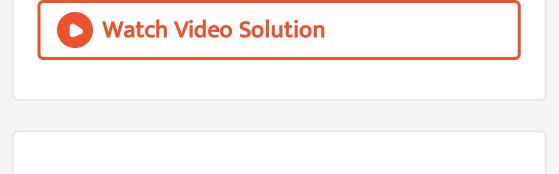
**80.** A human female experiences two major changes, menarche and menopause during

her life. Mention the significance of both

events.



**82.** Where does the first cleavage division of zygote take place?



83. Corpus luteum in pregnancy has a long life.

However, if fertilization does not take place, it

remains active only for 10-12 days. Explain.



# 84. What is foetal ejection reflex? Explain how

it leads to parturtion?

85. Except endocrine function, what are other

functions of placenta?

Watch Video Solution

# 86. Why doctors recommend breast feeding

during initial period of infant growth?

87. What are the events that take place in the

ovary and uterus during follicular phase of the

menstrual cycle?



88. Pollination in Lotus is:

A. a. by water

B. b. by wind

C. c. by insect

D. d. all of these
--------------------

## Answer:

Watch Video Solution

# 89. Give a schematic representation of

## oogenesis in human females.

**90.** What are the changes in the oogonia during the transition of a primary follicle to Graafian follicle?



**91.** What role does pituitary gonadotrophins play during follicular and ovulatory phases of menstrual cycle? Explain the shifts in steroidal secretions.

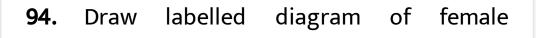


**92.** Meiotic division during oogenesis is different from that in spermatogenesis. Explain how and why?

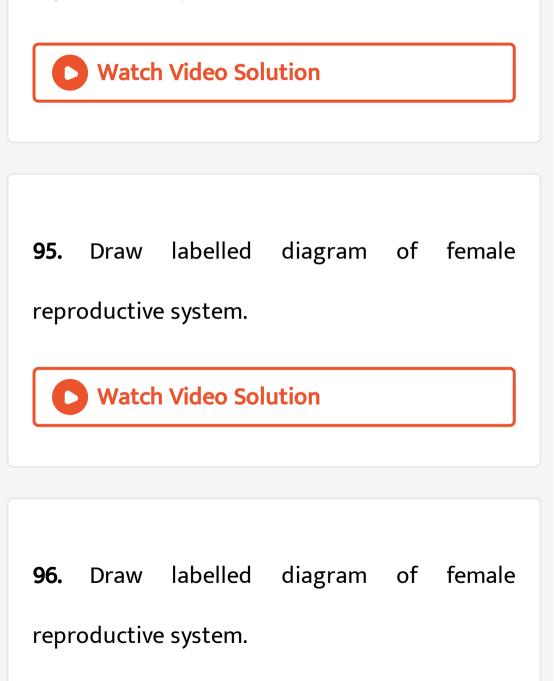
Watch Video Solution

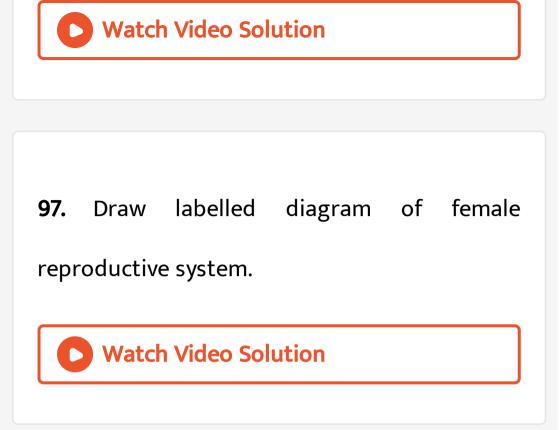
# 93. Describe the development of monocot

embryo with suitable diagrams.



reproductive system.





**98.** Choose the incorrect statement from the

following:

A. In	birds	and	man	nmals	internal	
fertilisation takes place						
B. colostrum contains antibodies and						
nut	rients					
C. Polyspermy is prevented by the chemical						
changes in the egg surface.						
D. In	the	human	femal	e impl	lantation	
осс	urs a	almost	seve	n day	s after	
fertilisation.						

**Answer:** 



**99.** Identify the wrong statement from the following:

A. High levels of estrogen triggers the ovulatory phaseB. 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:

Watch Video Solution

**100.** 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:**



101. Seminal plasma, the fluid part of semen, is

contributed by,

Seminal vesicle

Prostate

Urethra

Bulbnourethral gland

A. I and ii

B. I, ii and iv

C. ii, iii and iv

D. I and iv

### **Answer:**

102. Spermiation is the process of the release

of sperms from

A. Seminiferous tubules

B. Vas deferens

C. Epididymis

D. Prostate gland

**Answer:** 

**103.** Mature Graafian 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:

**104.** 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





# **105.** Which one fo the following is not a male acessory gland?

A. Seminal vesicle

B. Ampulla

C. Prostate

D. Bulbourethral gland

### Answer:



**106.** The immature male germ cell 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:

107. Pollination by bats is called

- A. a. ornithophily
- B. b. entomophily
- C. c. chiropterophily
- D. d. hydrophily

### Answer:



**108.** Which among the following has 23 chromosomes?

A. Spermatogonia

B. Zygote

C. Secondary Oocyte

D. Ogonia

## Answer:

## 109. Pollination by snails is called

A. a.entomophily

B. b. anemophily

C. c. hydrophily

D. d. malacophily

### Answer:



110. Which of the following hormones is not

secreted by humna placenta?

A. HCG

**B. Estrogens** 

C. Progesterone

D. LH

Answer:

**111.** The vas deferens receives duct from the seminal vesicle and opens into urethra as:

A. Epididymis

B. Ejaculatory duct

C. Efferent ductule

D. Ureter

Answer:

**112.** Urethral meatus refers to external opening of.....

A. Urinogenital duct

B. Opening of vas deferens into urethra

C. External opening of the urnogenital duct

D. Muscles surrounding the urinogential

duct

Answer:



113. Morula is a development stage

A. Between the zygote and blastocyst

- B. Between the blastocyst and gastrula
- C. After the implantation
- D. Between implantation and parturition

#### Answer:

**114.** Androgens are synthesised by:

A. Sertoli Cells

**B. Leyding Cells** 

C. Seminal Vesicles

D. Bulbourethral gland

Answer:

115. Write the technical term for the following:

Funnel lying close to the ovary.



**116.** Write the technical term for the following: The period of endometrial repair and regeneration.

**117.** Write the technical term for the following:

Copulation chamber in the human female.

Watch Video Solution

**118.** Write the scientific term for the following:

Release of ovum from ovary.

**119.** Supply the scientific term for the following:

Onset of menstrual cycle in female.



**120.** Supply the scientific term for the following:

The structures that pick up ova from body cavity.



**121.** Suppose the acrosome of a mammalian spermatozoa does not function normally. How would it affect the fertilization? Give reason.



122. Define semen.



123. How much semen is discharged per ejaculation in man?
Watch Video Solution

124. Write the location and functions of sertoli

cells in human.



125. What is the function of Sertoli cells?



# 126. What will happen if the fallopian tubes are

partially blocked and the ovulated eggs are

prevented from reaching the uterus?

**Watch Video Solution** 

# 127. Briefly explain primary male sex organs of

man.



128. Give an account of secondary sex organs

of human male.

**Watch Video Solution** 

129. Explain male reproductive glands.

130. Why scrotal sacs are present outside the

body?



**131.** Give the hormonal control of male

reproductive system.



132. Differentiate between vasa deferentia and

vasa efferentia.

Watch Video Solution

133. Differentiate between Seminiferous

tubules and Leyding cells.

134. Where are Leydig's cells present ? What is

their role in reproduction?

Watch Video Solution

135. Point out the differences in male and

female urethra.



136. Write the location and functions of sertoli

cells in human.

Watch Video Solution

137. Draw a labelled diagram of a sectional

view of human seminiferous tubule.

138. Differentiate between gametogenesis in

human males and females on the basis of:

time of initiation of the process.

products formed at the end of the process.



139. Draw a labelled diagram of a part of

seminiferous tubule showing

spermatogenesis.

**140.** Differentiate primary sex organs and secondary sex organs.

Watch Video Solution

**141.** Name the various organs of female reproductive system.

**142.** Differentiate the following:

Male and female reproductive duct system



**143.** Differentiate the following:

Spermatocytes and Oocytes

**144.** Differentiate the following:

Graafian Follicle and Corpus luteum.



**145.** Write a short note on structure and functions of vagina.



146. What is hymen? What are the functions of

hymen?



**147.** Give the hormonal control of female reproductive system.



148. Compare the size of gametes and gamete

producing organs of human male and female.

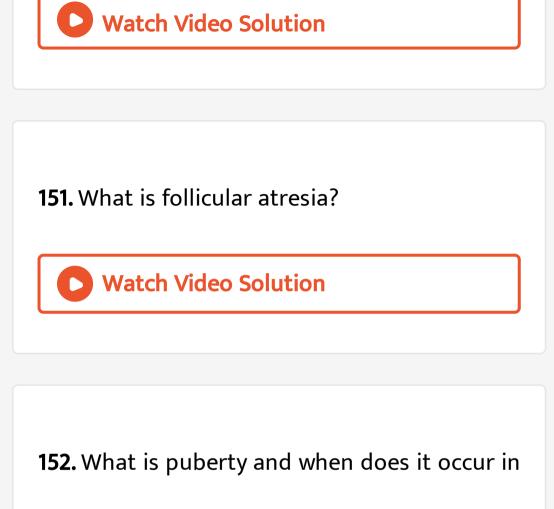
> Watch Video Solution

149. What is spermiogenesis? List the changes

that take place during spermiogenesis.



150. What is semen?



a human male and human female?



153. Which of the following occupies central

position in flower?

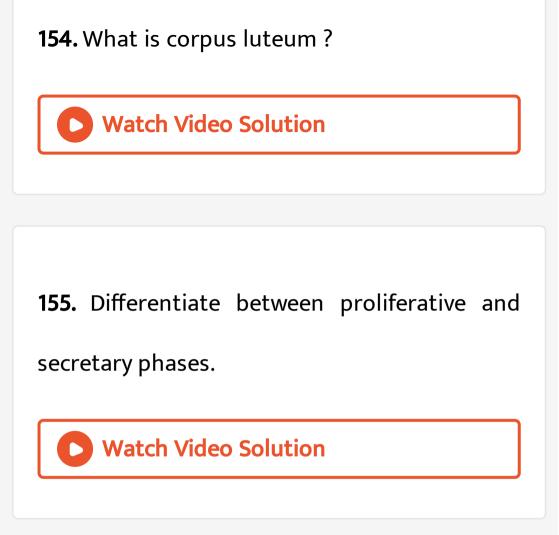
A. a. stamen

B. b. petals

C. c. sepal

D. d. pistil

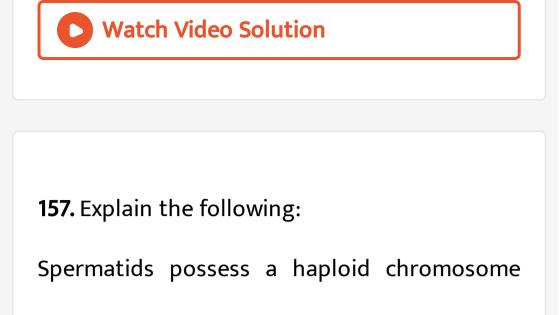
#### Answer:



**156.** Explain the following:

Failure of testes to descend into the scrotum

produces sterility.



number.



**158.** Explain the following:

The first half of the menstrual cycle is called

the proliferative phase as well as the follicular

phase.



**159.** Explain the following:

The second half of the menstrual cycle is called the luteal phase as well as the secretory phase.

**160.** Explain the following:

Primary sex organs control the growth, function and maintenance of secondary sex organs.

Watch Video Solution

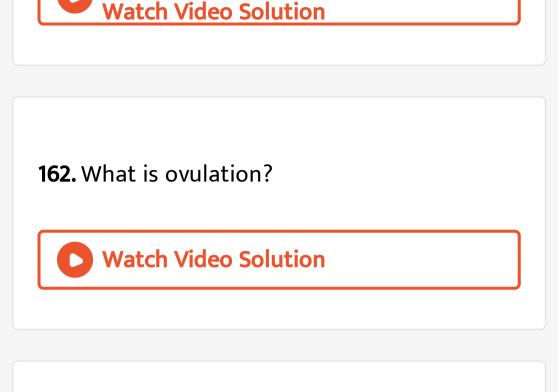
**161.** Explain the following:

Why are the human testes located outside the

abdominal cavity? Name the pouch in which

they are present.



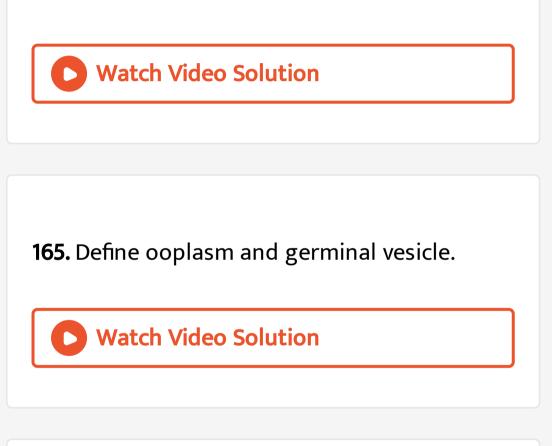


# **163.** What happens to Graafian follicle after ovulation?



164. Compare mature mammalian sperm and

ovum.



**166.** How Polyspermy is prevented in Human ?

**167.** What is cortical reaction?

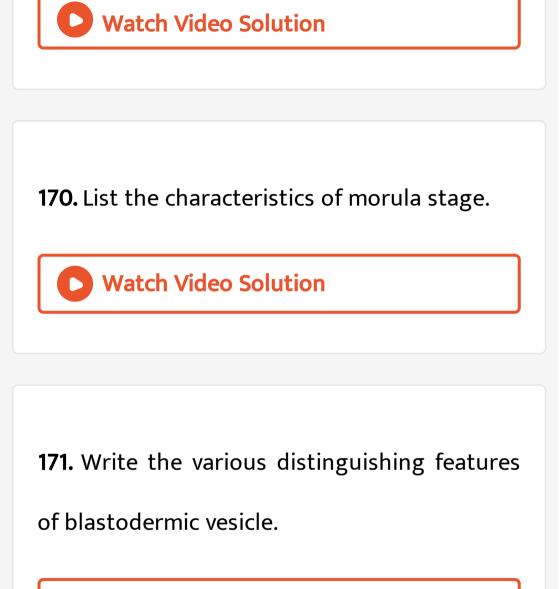
Watch Video Solution

168. Differentiate between Zona pellucida and

Corona radiata.



169. What is foetus?





**172.** Name and draw a labelled sectional view of embryonic stage that gets implanted in uterus.

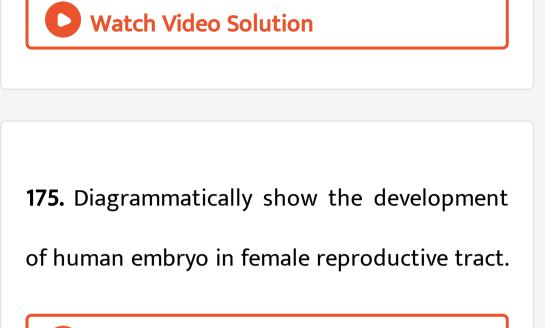


## 173. Differentiate egg and embryo.



174. Write a short note on implantation.

Γ



Watch Video Solution

176. When and where do chorionic villi appear

in humans? State their function.

**177.** Differentiate between morula and

blastula.





gastrulation.

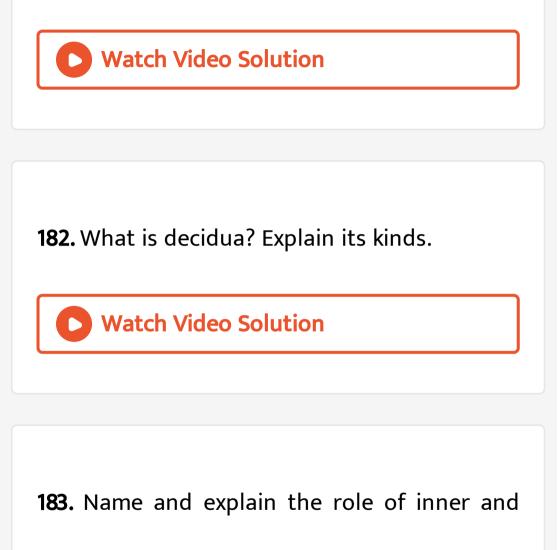
179. Differentiate:

Trophoectoderm and Ectoderm.

Watch Video Solution

**180.** The blood of mother never mixes with that of foetus yet it nourishes the foetus, how?

**181.** Write a note on pregnancy.



middle wall of human uterus.

**184.** Differentiate Spermatogenesis and

Spermiogenesis.



**185.** In some plants, the anthers and stigma grow and mature at the same time. this phenomenon is called

A. a. syngamy

B. b. fusion

C. c. allogamy

D. d. homogamy

#### Answer:



186. The endosperm cells in angiosperms are

A. a. diploid

B. b. triploid

C. c. haploid

D. d. tetraploid

#### Answer:

Watch Video Solution

### 187. The male reproductive system is located in

the

A. a. pelvis region

B. b. chest region

C. c. back region

D. d. none of the above

#### Answer:

Watch Video Solution

**188.** In which part of the human female reproductive system do the following events take place?

I-Release of 1st polar body.

**189.** In which part of the human female reproductive system do the following events take place?

II-Release of 2nd polar body.

Watch Video Solution

**190.** In which part of the human female reproductive system do the following events take place?

**III-Fertilisation** 

**191.** In which part of the human female reproductive system do the following events take place? -Implantation

Watch Video Solution

**192.** From where do signals for parturition originate and what does maternal pituitary release for stimulating uterine contrations for child birth?



- 193. Ovaries are found in the
  - A. a. male reproductive system
  - B. b. female reproductive system
  - C. c. both (a) and (b)
  - D. d. none of the above

#### Answer:

194. Ovaries produce the female gamete called

A. a. sperm

B. b. oviducts

C. c. ovum

D. d. prostate

Answer:

195. The last part of the oviduct is called

A. a. isthmus

B. b. ampulla

C. c. fimbriae

D. d. infundibulum

Answer:

**196.** Where and how complete development and nutrition of embryo takes place in viviparous animals?



## **197.** Give an account of histology of testis.



198. Differentiate between spermatogenesis

and oogenesis.

Watch Video Solution

**199.** Differentiate between spermatogenesis

and oogenesis.



200. What is menstrual cycle? Draw the schematic representation of menstrual cycle.
Watch Video Solution

201. Show with graphic sketch the hormonal

control over the menstrual cycle.

**202.** A women has conceived and implanatation has occurred. Discuss the sequence of changes up to parturition which will take place with in her body under the influence of hormones.

**Watch Video Solution** 

## 203. Describe the structure of mammalian

sperm.



**204.** Describe the structure of an ovum.



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

Ovum

Plasma Membrane

Zona Pellucida.

**206.** State the function of Zona Pellucida.

Watch Video Solution

**207.** Explain the events taking place at the time of fertilization of an ovum in human female.

208. Describe the formation and fate of three

germlayers inamammalian embryo.

Watch Video Solution

**209.** What are the main structures and organs which differentiate from the ectoderm and endoderm of an embryo?

**210.** What is placenta? Write its function.



211. How many spermatozoa are produced

from a secondary spermatocyte and how many

ova are produced from a primary oocyte?



**212.** During reproduction, the chromosome number (2n) reduces of 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?

Watch Video Solution

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



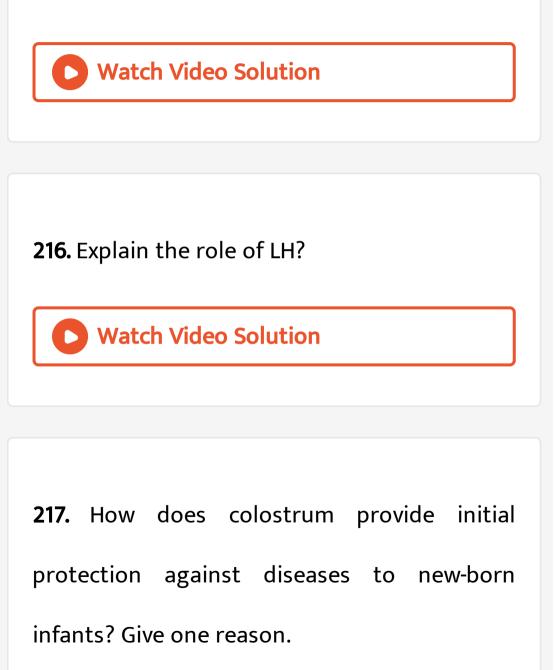
**214.** What name is given to the placenta in which trophoblastic villi and walls of uterine vessels degenerate so that foetal capillaries are bathed in uterine blood?

Watch Video Solution

**215.** Corpus luteum in pregnancy has a long life. However, if fertilization does not take

place, it remains active only for 10-12 days.

Explain.





**218.** Medically it is advised to all young mothers that breastfeeding is the best for their new born babies.Give reasons in support of your answer.

**Watch Video Solution** 

219. How does ovum which is realeased in the

body cavity enter the fallopian tube?



Watch Video Solution Exercise 1. The membranous cover of the ovum at ovulation is: A. Corona radiata B. Zona radiata

- C. Zona pellucida
- D. Chorion



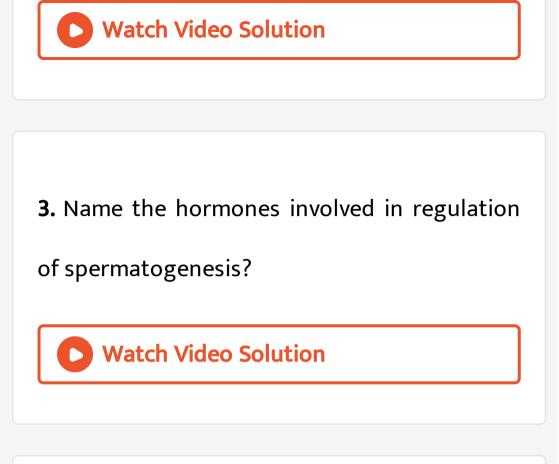


### 2. Identify the odd one from the following:

A. Labia minora

- B. Fimbriae
- C. Infundibulum
- D. Isthmus





**4.** Give any two striking similarities in the sequence fo embryonic development of all vertebrates.

### 5. What is lactiferous duct?

**Watch Video Solution** 

6. Write major functions of secondary acessary

duct of human male.

Watch Video Solution

7. define morula stage.





8. Write two major functions of each:

Testis.

Watch Video Solution

**9.** Write two major functions of each:

Ovary.



spermiation.



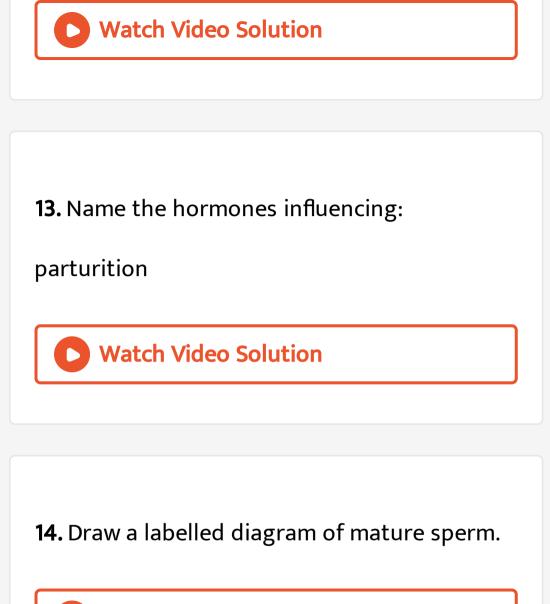
**11.** Name the hormones influencing:

ovulation

Watch Video Solution

**12.** Name the hormones influencing:

development of corpus luteum



15. What is menstrual cycle? Explain the role of

hormones in the regulation of menstrual cycle.



# **16.** The finger like projections is the infundibulum are called

- A. a. fimbriae
- B. b. ampulla
- C. c. isthmus

D. d. none of the above

#### Answer:

Watch Video Solution

# **17.** The process of formation of a mature female gamete is called

A. a. spermatogenesis

B. b. acrosome

C. c. semen

D. d. oogenesis

#### Answer:

Watch Video Solution

18. When and how does a placenta develop in

human female?

Watch Video Solution

**19.** How is placenta connected to the embryo?



# **20.** Placenta acts as an endocrine gland.

Explain?