

### **BIOLOGY**

### **NEET & AIIMS**

### **HUMAN REPRODUCTION**

Example

**1.** which of the following in not present in testicular lobule?

- A. Seminiferous tubules
- B. Leyding cells
- C. Sertolic cells
- D. Theca cells

### **Answer: D**



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2. The wall of the uterus has three layers of tissue. The- layer which undergoes cyclical changes during menstrual cycle is .

- A. Perimetrium
- B. Myometrium
- C. Endometrium
- D. Both (2) & (3)

### **Answer:**



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**3.** At the time of ovulation usually a single ovum is released. However, how many ova are

released in case of identical twins and fraternal. Twins respectively?

A. 2,2

B. 1,1

C. 1,2

D. 2,1

### **Answer:**



4.	Shortest	phase	in	the	menstrual	cycle	of
W	omen is						

- A. Menstrual phase
- B. Follicular phase
- C. Luteal phase
- D. Ovulatory phase

#### **Answer:**



# 5. hCG is functionally similar to

A. LH

B. FSH

C. GnRH

D. Progesterone

### **Answer:**





**1.** Temperature in scrotum necessary for sperm formation should be

- A.  $2\,^{\circ}\,C$  above body temperature
- B.  $2^{\circ} C$  below body temperature
- C.  $8^{\circ}\,C$  above body temperature
- D.  $8^{\circ}$  C below body temperature

### **Answer: B**



- 2. Crytorchidism is
  - A. Non-development of testes
  - B. Nondescent of testes into scrotum
  - C. Removal of scrotum
  - D. Breaking connetion of was deferens

### Answer: B



**3.** Tubuli recti of seminiferous tubules open into

A. Epididymis

B. Vasa efferentia

C. Vasa deferentia

D. Reta testis

**Answer: D** 



**4.** The common duct formed by the union of vas deferens and duct from seminal vescial is :

- A. Urethra
- B. mullerian duct
- C. Ejaculatory duct
- D. Spermatic duct

### **Answer: C**



**5.** Accessory glands of male reproductive system are

A. Prostate and seminal vesicles

B. Prostate ,Bartholin's and seminal vesicles

C. Seminal vesicles and Bartholin's

D. Prostate, Cowper's and seminal vesicles

### **Answer: D**



**6.** Scrotal sacs of man are connected with the abdominal cavity by

A. Inguinal canal

B. Haversian canal

C. Spermatic canal

D. Reta testis

**Answer: A** 



# 7. Sperms are stored and nourished inside

- A. Cowper's gland
- B. Epididymis
- C. Seminiferous tubules
- D. Vasa efferentia

**Answer: B** 



- 8. Role of Leydig cells is
  - A. Provide nourishment to sperms
  - B. Provide motility to sperms
  - C. Bring about maturation of sperms
  - D. Synthesis of testosterone hormone

#### **Answer: D**



- 9. Vas deferens arises from
  - A. Cauda epididymis
  - B. Caput epididymis
  - C. Corpus epididymis
  - D. Rete testis

**Answer: A** 



## 10. Epididymis is

- A. Network of sinuses between seminiferous tubules and vasa efferentia
- B. Intermediate structure between rete testis and vasa efferentia
- C. A long coiled tube between vasa efferentia and was deferens
- D. Connection between vas deferens and seminal vesicle

### **Answer: C**



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11. Mesovarium is pertioneal covering of

A. Ovary

**B.** Testis

C. Kidney

D. Liver

**Answer: A** 

# 12. Ostium is an aperture present in

A. Ampulia part

B. Fallopian funnel

C. Ovisac

D. Cloaca

### **Answer: B**



### 13. Lower narrow end of uterus is called

- A. Urethra
- B. Cervix
- C. Clitoris
- D. Vulva

### **Answer: B**



**14.** Which group represents external genitalia of human female ?

A. Labium minora labium majora vagina

B. Labium majora, labium minora, oviduct

C. Labium minora , labium majora cervix

D. Labium majora labium minora clitoris

### **Answer: D**



- 15. Layers of ovum from outside to inside are
  - A. Corona radiate zona pellucida vitelline membrane
  - B. Zona pellucida corona radiate vitelline membrane
  - C. Vitelline membrane zona pellucida corona radiata
  - D. Zona pellucida , vitelline membrane corona radiata

### **Answer: A**



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### 16. In human females ova are produced in

A. Ovary

**B.** Oviduct

C. Uterus

D. Vagina

**Answer: A** 

**17.** Hormone responsible for ovulation and development of corpus luteum is

A. FSH

B. LH

C. LTH

D. ICSH

Answer: B



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**18.** When egg is not fertilised yellow coloured corpus luteum degenerates to form

A. Corpus albicans

B. Corpus callosum

C. Corpora bigemina

D. Corpora quadrigemina

**Answer: A** 



19. In the absence of pregnancy corpus luteum

A. Becomes active and secretes FSH and LH

B. Produces a lot of oxytocin and relaxin

C. Degenerates after some time

D. Is maintained by progesterone

### **Answer: C**



**20.** Egg is liberated from ovary and enters the fallopian tube in

A. Secondary oocyte stage

B. Primary oocyte stage

C. Oogonial stage

D. Mature ovaum stage

**Answer: A** 



# 21. During spermalogenesis meiosis occurs in

- A. Primary spermatocytes
- B. Secondary spermatocytes
- C. Both (1) & (2)
- D. Spermatogonia

### **Answer: C**



### 22. Spermiogenesis changes

- A. Spermatogonium to primary spermatocytes
- B. Primary spermatocytes to secondary spermatocytes
- C. Secondary spermatocytes to spermatids
- D. Spermatids to sperms

### **Answer: D**



# 23. In spermatogenesis

- A. a primary spermatocyte produces four similar sperms while in oogenesis a primary oocyte forms
- B. Four similar ova
- C. Three large ova and one polar body
- D. Two large ova and two olar bodies

#### **Answer: D**

### 24. Minute cells spearating from ova are

- A. Primary oogonia
- B. Polar bodies
- C. Secondary oogonia
- D. Primary spermatogonia

**Answer: B** 



**25.** What are the diploid stages in spermatogenesis?

A. Spermatogonia and spermatids

B. Spermatogona and primary spermatocytes

C. Spermatogonia and sperms

D. Primary spermatocytes and secondary spermatocytes

**Answer: B** 

**26.** Extrusion of second polar body from egg occurs:

A. After entry of sperm and before completion of fertilization

B. After completion of fertilization

C. Before the entry of sperm

D. Without any relation with sperm entry

Answer: A

**27.** Spermatogenesis and sperm differentiation are under the control of

A. FSH only

B. Lh

C. Testosterone and FSH

D. Parathyroid hormone

**Answer: C** 



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

A. Mitochondria

B. Centriole only

C. Acrosome

D. Nucleus and mitochondria

**Answer: A** 



**29.** A change in ovum after penetration of sperm is

A. Formation of first polar body

B. Second meiosis starts

C. First meiosis

D. Formation of second polar body

**Answer: D** 



**30.** Which of the following structures produces energy for the mobility of mature sperm?

- A. Nucleus in head region
- B. Mitochondria in head region
- C. Axial filament in tail
- D. Mitochondria in middle piece

**Answer: D** 



**31.** In menstrual cycle of 28/29 days ovum is released during

- A. Beginning of the cycle
- B. Middle of the cycle
- C. End of the cycle
- D. Any time during the cyle

**Answer: B** 



**32.** Loss of reproductive capacity in women after the age of 45 years is

- A. Menstruation
- B. Ageing
- C. Menopausa
- D. Menarche

**Answer: C** 



**33.** The correct sequence of hormones secreted from the beginning of menstrual cycle is

- A. FSH, estrogen progesterone
- B. Estrogen FSH ,progesterone
- C. FSH, progesterone
- D. Estrogen progesterone ,FSH

## **Answer: A**



**34.** Phase of menstrual cycle in human that lasts for 7-8 days is

- A. Follicular phase
- B. Ovulatory phase
- C. Luteal phase
- D. Menstruation

**Answer: D** 



**35.** Menstrual cycle occurs in

A. All females

B. Mammalian females

C. Primate females

D. Rabbits

**Answer: C** 



**36.** Withdrawl of which hormone is the immediate cause of mentruation ?

- A. Estrogen
- B. FSH
- C. FSH-LH
- D. Progesterone

#### **Answer: D**



**37.** LH surge occurs during which phase of menstrual cycle?

A. Menstrual phase

B. Beginning of proliferative phase

C. Secretory phase

D. At the middle of the cycle

**Answer: D** 



38. Estrous cycle is the characteristic of

A. Human females

B. Mammalian females

C. Mammalian females other than primates

D. Primate females

**Answer: C** 



## 39. Monoestrous animals have

- A. One ovulation each month
- B. One heat period each month
- C. One breeding season in a year
- D. One menstrual cycle each month

## **Answer: C**



**40.** Which hormone level reaches peak during the luteal phase of menstrual cycle ?

- A. Luteinising hormone
- B. Progesterone
- C. FSH
- D. Estrogen

**Answer: B** 



**41.** Stage of embryo at which implantation occurs in human female is

A. Morula

B. Zygote

C. Blastocyst

D. Transient 3- celled stage

## **Answer: C**



# 42. In ectopic pregnancy foetus grown in

A. Fundus part of uterus

B. Fallopian tube

C. Uterus

D. Both (1)& (3)

## **Answer: C**



**43.** Which of the following statement is incorrect?

A. Fertilization occurs in fallopian tube

B. Fertilization is a physio- chemical process / event

C. Cleavage produces morula

D. Cleavage leads to increased mass of protoplasm

**Answer: D** 

# 44. Cortical granules are associated with

- A. Oogenesis
- B. Spermatogenesis
- C. Cleavage
- D. Fertilization

## **Answer: D**



- **45.** Termination of gastrulation is marked by
  - A. Closure of primitive gut
  - B. Obliteration of archenteron
  - C. Obliteration of blastocoel
  - D. Closure of neural tube

## **Answer: C**



- **46.** Onset of pregnancy
  - A. Stimulates testosterone secretion
  - B. Leads to degeneration of ovary
  - C. Inhibits further ovulation
  - D. Inhibits fusion of egg and sperm nuclei

## **Answer: C**



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<b>47.</b> Site	ot terti	lızatıon	ın a	mammal	IS

- A. Ovary
- B. Uterus
- C. Vagina
- D. Fallopian tube

## **Answer: D**



- 48. Gastrulation comprises
  - A. Morphogenetic movements
  - B. Differentiation of archenteron
  - C. Differentiation of three germ layers
  - D. All of these

**Answer: D** 



**49.** After a sperm has penetrated an ovum , the entry of other sperms is prevented by :

- A. Condensation of yolk
- B. Formation of pigment coat
- C. Development of vitelline membrane
- D. Development of fertilization membrane

**Answer: D** 



**50.** Two offsprings developed in the same uterus from f ertilisation of two different ova

- A. Monozygotic twins
- B. Dizygotic twins
- C. Fraternal twins
- D. Both (2) & (3)

#### **Answer: D**



**51.** Hormone administered for hastening child birth is meant for

- A. Stimulating the striped muscles
- B. Raising blood pressure
- C. Increasing energy availability
- D. Contraction of smooth muscles

**Answer: D** 



# **52.** Gestation period in human is

- A. 10 weeks
- B. 28 weeks
- C. 32 weeks
- D. 38 weeks

## **Answer: D**



**53.** Extra -embryonic membrane amnion provides

A. Cells to embryo

B. Protection to embryo

C. Nutrition to embryo

D. Both (1) & (2)

## **Answer: B**



**54.** Active inrolling of endodermal and mesodermal cells into interior of embryo is

- A. Ingression
- **B.** Involution
- C. Inversion
- D. Epiboly

**Answer: B** 



## 55. Placenta is

- A. Channel for providing essential requirements for growth of embryo
- B. Storage organ
- C. Conductor for nerve impulse
- D. Meant for protection of embryo from shocks

## Answer: A



**56.** During embryonic development which of the following is formed first ?

A. Heart

B. Brain

C. Neural tube

D. Skin

**Answer: C** 



**57.** Which of the following are the derivatives of endoderm ?

A. Muscles and blood

B. Alimentary canal and respiratory organs

C. Excretory and reproductive organs

D. Skin and nerve cord

Answer: B



**58.** vvnicn of the following are mesodermal and endodermal in origin respectively?

- A. Urinary bladder Kidney
- B. Kidney Inner lining of urinary bladder
- C. Urinary ducts Genital ducts
- D. Genital ducts Urinary ducts

## **Answer: B**



**59.** Find the incorrect match .w.r.t . Increase in the levels of following hormones

A. Oxytocin - Uterine contraction during labour

B. Prolactin - Lactation after child birth

C. Progesterone - Uterine contration

D. Luteinising hormone - Stimulates o vulation

**Answer: C** 



60. Kidneys, heart and gonads are formed from

A. Ectoderm

B. Endoderm

C. Inner cell mass

D. Mesoderm

## **Answer: D**



# **Assignment Section A Objective Type Question**

- **1.** Primary sex organs differ from the secondary sex organs in all the following except
  - A. They produce gamets
  - B. They secrete sex hormones
  - C. They are concerned with the conduction

of gametes

D. Testes in male and ovaries in female are the examples of primary sex organs

**Answer: C** 



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**2.** Why the testes in human beings and mammals are situated outside the abdominal cavity within a pouch called scrotum?

- A. There is not enough space in the pelvic area for the testicless to be housed internally
- B. The scrotum helps in maintaining the low temperature of testes ,  $2.5^{\circ}C$  lower than normal body temperature required for spermatogenesis
- C. The scrotum helps in maintaining the high temperature of testis  $2.5\,^{\circ}\,C$  higher

than the normal body temperature required for spermatogenesis

D. Providing more space for the growth of epididymis

## Answer: B



3. Read the following paragraph with two blands Each testis has about - A compartments called as testicular lobules.

Each lobule contains B highly coiled seminiferous tubules in which the sperms are produced. The correct option for the two blanks is

	Α	В
;	(1) 50	1 - 3
	(2) 100	<b>1</b>
1	(3) 250	1 - 3
	(4) 500	3



**4.** Which of the following cells secrete testicular homones called androgens and form endocrine part of the testis?

A. Leydig cells

B. Interstitial cells

C. Sertoli cells

D. Both (1) & (2)

#### **Answer: D**



**5.** Vas deferens receives a duct from seminal vesicle and opens into urethra as \_\_\_\_\_

A. Urethral meatus

B. Ejaculatory duct

C. Ureter

D. Epididymis

**Answer: B** 



<b>6.</b> Fructose is present in the secretion of

- A. Corpus sponglosum
- **B.** Seminal vesicles
- C. Uretha
- D. Tyson's gland

## **Answer: B**



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7. Male accessory glands include

- A. Paired seminal vesicles
- B. A prostate gland
- C. Paired bulbourethral gland
- D. All of these

#### **Answer: D**



- 8. The largest part of the fallopian tube is
  - A. Infundibulum

- B. Isthmus
- C. Ampulla
- D. Cervix



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**9.** Which of the following is last part of the oviduct which has narrow lumen and joins with the uterus?

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

#### **Answer: B**



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**10.** In humans , at the end of the first meiotic division the male germ cells form

- A. Spermatogonia
- B. Primary spermatocytes
- C. Secondary spermatocytes
- D. Spermatids



- 11. Sertoli cells are found in
  - A. Ovaries ind secrete progesterone

- B. Testes and secrete testosterone
- C. Seminiferous tubules and after spermiognesis sperm heads become embedded in them .
- D. Adrenal cortex and secrete adrenaline



**12.** The Graafian follicle ruptures to release
\_\_\_\_\_ from the ovary by the process called ovulation

A. Primary oocyte

B. Secondary oocyte after completing meiosis - II

C. Secondary oocyte after completing meiosis - I and with the releases of  $\mathbf{1}^{st}$  polar body

D. Mature ovum



- **13.** Which one of the following statements is incorrect about menstrual cycle?
  - A. The first menstruation begins at puberty and is called menarche
  - B. Lack of menstruation may also occur due
    to some environmental factors like

stress, poor heath

C. Corpus luteum secretes large amounts of progesterone which is essential for maintenance of endometrium

D. In absence of fertillisation ,corpus luteum degenerates in luteal phase and new follicles start developing Immediately?

## **Answer: D**



**14.** In the fertile human female , approximately on which day of the menstrual cycle (32 days ) does ovulation take place ?

A. Day 18

B. Day 14

C. Day 1

D. Day 8

## **Answer: A**



**15.** After ovulation Graafian follicle transforms into

A. Corpus luteum

B. Corpus albicans

C. Corpus callosum

D. Follicular atresia

**Answer: A** 



# 16. Fertilisation in human beings occurs in

- A. Isthmus
- B. Ampullary isthmic junction
- C. Uterus
- D. Infundibulum

**Answer: B** 



- 17. Why it is scientifically correct to say that sex of the baby is determined by the father and not by the mother ?
- A. Human feamle produces two types of gametes
  - B. Human male produces one type of gametes

C. Human female is XX, whereas male is XY

50 percent of sperms carry the X

chromosome while other 50% carry Y chromosome

D. All of these

**Answer: C** 



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18. In human female the blastocyst

A. Forms placenta even before implantation

- B. Human male produces one type of gametes
- C. Gets implanted in the endometrium by trophoblast cells
- D. The trophoblast cells get differentiated as the embryo



**19.** Trophoblast is not involved in the formation of

A. Protective and trophic membranes

B. Foetal portion of placenta

C. Body of developing embryo

D. Chorionic villi

**Answer: C** 



20. Placenta acts as an endocrine tissue and

produces several hormones like

Human chorionic gonadotropin (hCG)

Human placental lactogen (hPL)

Estrogens

Progesterone

A. A & B

B. B only

C. A, B & C

D. A, B C & D

#### **Answer: D**



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**21.** which of the following groups of hormones are produced in women only during pregnacy?

- A. hCG, hPL, relaxin
- B. Estrogen, progesterone ,hCG
- C. Cortisol, prolactin, thyroxine
- D. Prolactin, progesterone, hCG

## **Answer: A**



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**22.** Immediately after implantaion, ectoderm, endoderm and the mesoderm of embryo is formed from .

- A. Trophoblast
- B. Cytotrophoblast
- C. Embryoblast
- D. Syncytiotrophoblast



- **23.** The stem cells which have potency to give rise to all tissues and organs are formed from
  - A. Trophoblast
  - B. Umbilical cord
  - C. Inner cell mass
  - D. Placenta



- **24.** Foetal ejection reflex in human female is induced by
  - A. Differentiation of mammary gland
  - B. Pressure exerted by amniotic fluid
  - C. Fully developed foetus and placenata
  - D. Release of oxytocin from pituitary



- **25.** Signals from fully developed foetus and placenta ultimately lead to parturition which requires the release of
  - A. Estrogen from placenta
  - B. Oxytion from maternal pituitary
  - C. Oxytion from foetal pituitaty
  - D. Relaxin from leydig's cells

#### **Answer: B**



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# **Assignment Section B Objective Type Question**

1. Each seminferous tubule is lined on its inside by two types of cells A nad B. which of the following options is correct, w.r.t the type

#### of cell and its function?

	Α	В
(1)	Male germ cells : Undergo meiotic division	Sertoli cells : Provide nutrition to germ cells
(2)	Spermatogonia : Undergo Mitosis	Sertoli cells : Secrete testicular hormones
(3)	Male germ cells: Leading to sperm formation	Leydig cells : Secrete androgens
(4)	Sertoli cells : Provide nutrition to germ cells	Leydig cells : Secrete inhibin



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**2.** which of the following is a set of made accessory ducts?

A. Rete testis, vasa efferntia, tubuli recti

- B. Rete testis, vasa efferntia, epididymis and vas deferens
- C. Epididymis, ejaculatouy dict, urethra
- D. Seminiferous tubules, vasa efferntia, epididymis and vas deferns

## Answer: B



**3.** Trace the correct path of movement of the sperms upto urethra.

A. seminferous tubles ightarrow Vasa efferntia 'to'

Rete testis 'to' Epididyms 'to' vas deferns

'to' Ejaculatory 'to' duct 'to' Urethra

B. seminiferous tubules ightarrow Rete testis

$$ightarrow$$
 Epididyims  $ightarrow$  Vasa efferentia  $ightarrow$ 

Vas defernes ightarrow Ejaculatory duct ightarrow

Urethra

C. seminiferous tubules  $\rightarrow$  Rete testis

ightarrow vasa efferentia ightarrow Epididymis ightarrow

Vas deferens ightarrow Ejaculatory duct ightarrow

Urethra

D. seminferous tubules  $\rightarrow$  Rete testis  $\rightarrow$ 

vasa efferntia ightarrow Epididymis ightarrow

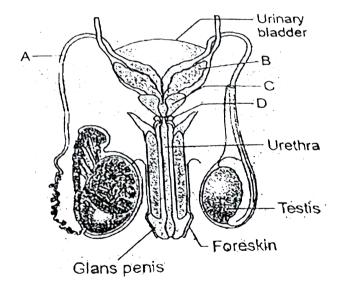
Ejaculatory duct ightarrow Vas defernes 'to

Urethra

## **Answer: C**



**4.** Given below is a diagrammatic sketch of a portion of human mate reproductive system. Which of the following part contributes to the maximum portion of semen?



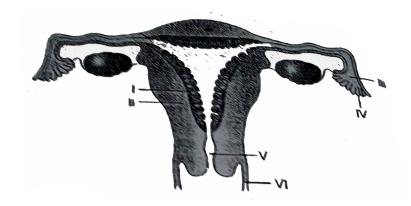
- B. C
- C.B
- D. A



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**5.** which of the following depicts the site of impantation of blastocyst under normal

## condition



A. II

B. V

C. I

D. VI

## **Answer: C**



**6.** which one of the following is incorrect match?

A. Myometrium : Echibits strong contractions during delivery of the baby

B. Endometrium : Undegoes cyclical changes during menstrual cycle

C. Perimetrium: Serosa of uterus

D. Uterus: Birth canal

#### **Answer: D**



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**7.** Which of the following is the correct match about the female external genitalia and their functions?

A. Mons pubis : Cushion of fatty tssue covered by skin and pubic hair and surroud the vaginal crifice

- B. Labia majora: Fleshy folds of tissue which extend down from the mons pubis and surround the vaginal opening
- C. Paired folds of tissue under the labia majora homologous to scrotum in males
- D. A tiny finger like structure which lies at the upper junction of the two labia minora above the urethral opening. It is analogous to penis in males

## Answer: B

**8.** The mammary glands are paired structures that contain the glandular tissue and variable amount of fat. The correct sequence of tissues involved in synthesis and flow of milk are

A. Mammary lobes ightarrow Mammary alveoli

ightarrow Mammary ampulla ightarrow Mammary

 $duct \rightarrow Lactiferous duct$ 

B. Mammary lobes  $\rightarrow$  Mammary alveoli

ightarrow Mammary ducts ightarrow Lactiferous

duct

C. Mammary lobes ightarrow Mammary alveoli

ightarrow Lactiferous duct ightarrow Mammary

ampulla  $\rightarrow$  Mammary duct

D. Mammary alveoli  $\rightarrow$  Mannary lobes  $\rightarrow$ 

Lactiferous duct  $\rightarrow$  Mammary duct

## **Answer: B**



**9.** Given below are four statement (A-D) each with one of two blanks .Select the option which correctly fill up the blanks in two statements

A The human male ejaculates about (i) million sperms during a cooitus. Out of which for normal fertility at teast (iii) percent sperms must have normal shape and size

B. A primary spermatocyte completes (i) meiotic division leading to the formation of two equal haploid cells called (i)

C. Spermatogenesis starts at the age of (i) due to significant increase in the secretion of (ii) a hypothalamic hormone

D. Oogenesisi is initiated during embryonic development and at puberty only (i) primary follicles are left in each overy

A. A -(i): 200 to 300, (ii) 40

B - (ii) : Second , (ii) Spermatids

B. A- (i): 200 to 300, (ii) 40

D- (i): 60,000 to 80,000

C. B- (i) : First : (ii) Secondary

spermatocytes

C-(i): Puberty, (ii) GnRH

D. C - (i) Pubety, (ii) GonadotrophIns

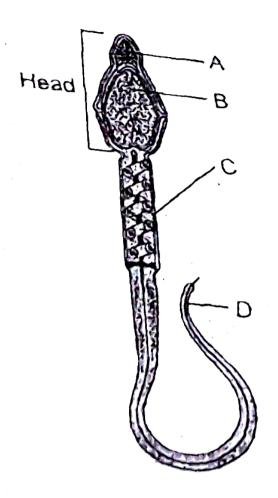
D- (i): 60,000 to 80,000

# Answer: C



10. Which of the following labelled parts produces energy for the movement of the fall that facilitate sperm motility essential for

# fertilisation?



A. A

B.B

C.C

D. D

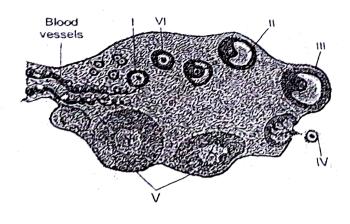
## **Answer: C**



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11. The figure given below depicts a diagrammatic sectional view of ovary. Which one set of three parts out I-VI are correctly

### Identified?



A. VI - Primary follicle, III - Graafian follicle

V- Corpus luteum

B. II- Secondary follicle, III- Tertiarya, IV-

Ovulation

C. I- Primary follicle, II - Tertiary follicle V-

Corpus luteum

D. I- Primary follicle, II - Corpus luteum V-

Graafian follicle

**Answer: C** 



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**12.** Which one of the following is the incorrect match of the events occurring during menstrual cycle?

A. Menstruation : Breakdown of

endomentrium and ovum not fertilised

B. Ovulation: LH and FSH attain peak level

C. Proliferative phase : Rapid regeneration

of endometrium and maluration of

Graafian follicle

D. Development of corpus luteum :

Follicular phase and I ncreased secretion

of progesterone

# Answer: D

**13.** Identify the hormones that are secreted in large amount prior to ovulation :

 $A.\ LH \qquad B.\ FSH$ 

 $C.\ Estro \geq n \hspace{1cm} D.\ Pro \geq stero 
eq$ 

A. A only

B. A & B only

C. A,B & C only

D. A,B ,C & D

# **Answer: C**



Watch Video Solution

**14.** Why do all copulations not lead to fertilisation and pregnancy? The root cause is

- A. Due to numerous sperms and one ovum
- B. Due to less progesterone
- C. Ovum and sperms are not transperted

simultaneously to the ampullary

isthmic junction

D. Due to non-formation of corpus luteum

**Answer: C** 



**Watch Video Solution** 

**15.** What induces the completion of the meiotic division of the secondary oocyte?

A. Contact of the sperm with the zona pellucida layer of the ovum

B. The entry of the sperm into the cytoplasm of the ovum through the zona pellucida and the plasma membrane

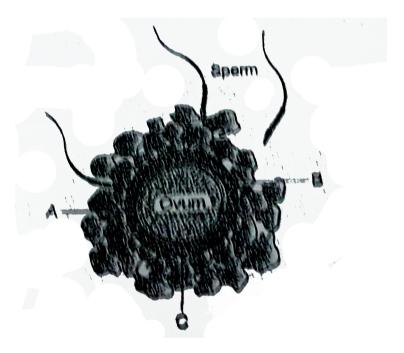
C. Entry of the sperm in the ampullary - isthmic junction

D. Copulation

Answer: B



**16.** Following the diagram of an ovum surrounded by few sperms



Which of the following option is correct for

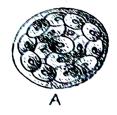
# the labelled parts A B and C?

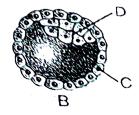
	A	В	С
(1)	Follicular cells	Corona radiata	Perivitelline space
(2)	Zona pellucida	Perivitelline space	Corona radiata
(3)	Zona pellucida	Corona radiata	Perivitelline space
(4)	Perivitelline space	Zona pellucida	Corona radiata



# **Watch Video Solution**

**17.** Identify the stages A and B, and what is the correct labelling of C and D?





# Choose trhe correct option

<b>A</b>	В	C	D
(1) Morula	Blastocyst	Follicular cells	Inner cell mass
(2) Morula	Blastocyst	Embryo- blast	Tropho- blast
(3) Morula	Blastocyst	Tropho- blast	Inner cell mass
(4) Blastocyst	Morula	Tropho- blast	Inner <sub>Cell</sub> mass



**18.** The first sing of the second month foetus may noticed by listening to the heart sound carefully through the stethoscope . Embryo,s heart is frmed \_\_\_\_.

- A. By the end of the second month of pregnancy
- B. By the end of first trimester
- C. After one month of pregnancy
- D. During fifth month

# **Answer: C**



**19.** In human beings, pregnacy lasts for 9month . The gestation period of dog, elephant . Cat and cow is given below . Which of the following is wrong match ?



**View Text Solution** 

**20.** which of the following decidua layer forms a partition between developing embryo and lumen at uterus?

A. decidua basalis

- B. Decidua parietalis
- C. Decidua capsularis
- D. Cnntra deciduta

#### **Answer: C**



**Watch Video Solution** 

**21.** which of the following in not a correct statement about umbilical cord?

A. It connects the placenta to the embryo

B. It helps in the transport of substances

to and from the embryo

C. It priduces several hormones like hPL

estrogen and progesterone,

D. It has 100% foetal blood

Answer: C



**22.** Sometimes the labor pains are less and uterine contraction have to be induced . What do you think the doctors inject to facilitate delivery?

A. Progesterone and estrogen hormones

B. Oxytion /Pitocin

C. FSH and LH

D. Relaxin

#### **Answer: B**



Water video Solution

**23.** which of the following is not the function of Sertoli cells (sustentacular cells)?

A. Release of androgen binding protein

B. Release of antimullerin factor

C. Regulate Spermatogenesis by relesing

inhibin

D. Secretion of testosterone

Answer: D

**24.** If both ovaris are removed from pregnant human femle in first trimester of pregnacy then it will lead to

- A. Abortion
- B. Normal development
- C. Irregular ovulation no fixed time interval
- D. Menarche

**Answer: B** 

**25.** Decidua which lakes part in the formation of maternal protion of the placent is

A. Decidua basalis

B. Decidua capsularis

C. Decidua parietalis

D. Chorion

**Answer: A** 



# Watch Video Solution

**26.** In which type of placnta minimum number of barrier is / are present between foetal and maternal blood?

A. syndesomochorial

B. Haemochorial

C. Haemoendothelial

D. Endotheliochorial

**Answer: C** 

27. Blood flowing in umbilical cord of mammalian embryo is

A. 100% maternal

B. 50% maternal and 50% foetal

C. 100% foetal

D. 75% foetal anf 25% maternal

## **Answer: C**



28. Epiboly is the process of

A. Rotation of gastrula wihin viteline membrane so that animal pople animal pole become anterior

B. overgrowth of micromeres which divide rapidly and sperad downward over megameres except at yolk plug

C. Mass migration of cells from animal hemisphere so that upper micromeres migrate over edge of dorsal lip .roll inside and tucked beneath outer layer

D. Formation of small slit like invagination sperm to penetrate zona pellucida?

Answer: B



**29.** which of the followin enzyme helps sperm to penetrate zone pellucida?

- A. Hyaluronidase
- B. Neuraminidase
- C. Acrosin
- D. Corona penetrating enzyme

**Answer: C** 



**30.** Inhibition of uterine contraction casses and the bleeding and cramps of menstruation begin due to

- A. Increase in level of progesterone
- B. Decrease in level of progesterone
- C. Increase in level of LH
- D. Decrease in level of FSH

#### **Answer: B**



**31.** Which centriole of sperm is required for first cleavage?

- A. Proximal centriole
- B. Distal centriole
- C. Ring centriole
- D. Posterior centriole

**Answer: A** 



**32.** Androgen binding protein which helps in concentrating testosterone in the seminiferous tublue and which inhibits ICHS secreted by anterior pituitary and GnRH production by hypothalmus is secreted by

- A. Cells of Leyding
- B. Sustentacular cells
- C. Interstitial cells
- D. Spermatogonia cells

# Answer: B

# 33. Mark the incorrect statement

- A. Polyspermy is prevented by depolarisation of the membrane is called as fast block
- B. Entry of sperm into ovum restarts the cell cycle by breaking down MPF and turning on the APC

- C. If imlantaion occurs anywhere else other than uterus, it is called tubal pregnancy
- D. Ability to reproduce is lost in female primate after menopause

## **Answer: C**



**Watch Video Solution** 

**34.** Drugs such as Thalidomide taken by woman in fist trimester of pregnacny cause all

the following molformations in the decveloping embryo exacept

- A. Phocomelia
- B. Amelia
- C. Heart disorder
- D. Placentitis

# Answer: D



**35.** Home use kits for determining a women's fertile period depend on the detection the of hormone in the urine . This hormone is

- A. Progesterone
- **B.** Estradiol
- C. hCG
- D. LH

**Answer: D** 



**36.** Neural crtst cells break off from the \_\_\_\_ and later move to the sides of the developing embryo to from\_\_\_\_

- A. Placodes, sense orgnas of head
- B. Ectoderm, sense organs of head
- C. Notochord, vertebral column
- D. Neural tube, autonomic ganglia

# **Answer: D**



- **37.** Type of placenta in the human is
  - A. Chorionic , discoidal, epitheliochorial , deciduate
  - B. Decidutate, hemochorial, diffuse, allantochorionic
  - C. Hemochorial, metadiscoidal, deciduate, chorionic
  - D. Non-decidutae, discoidal , deciduate hemoendothelial

# **Answer: C**



**Watch Video Solution** 

**38.** The type of placenta fund in human beings is of type :

- A. Discodial
- B. Diffuse
- C. Zonary
- D. Cotyledonary

# **Answer: B**



# **Watch Video Solution**

**39.** which of the following can be termed as milk ejectig hormone?

- A. Prolactin
- B. Oestrogen
- C. Progesterone
- D. Oxytocin

# **Answer: D**



**Watch Video Solution** 

# **Assignment Section C Previous Type Question**

**1.** 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 LH and FSH
- C. Posterior pituitary gland and stimulates secretion of oxytocin and FSH
- D. Posterior pituitary gland and stimulates secretion of LH and relaxin

Answer: B



- 2. Capacitaion occurs in
  - A. Rete testis
  - B. Epididymis
  - C. Vas deferens
  - D. Femlae Reproductive tract

# **Answer: D**



**3.** A temporary endocrine gland in the human body is

A. Pineal gland

B. corpus cardiacum

C. corpus luteum

D. Corpus allatum

**Answer: C** 



**4.** which of the following depicts the correct pathway of transport of sperms?

A. Rete testis ightarrow Efferent ductules ightarrow Epididymis ightarrow Vas deferns

B. Rete testis ightarrow Epididymis ightarrow Efferent ductules ightarrow Vas defernes

C. Rete testis o Vas deferens o Efferent ductules o Epididymis

D. Efferent ductules ightarrow Rete testis ightarrow

Vas deferens ightarrow Epididymis

# **Answer: A**



**Watch Video Solution** 

**5.** Match column-I with column II and select the correct option ucing the codes given below:



**View Text Solution** 

**6.** Several hormones like hCG, hPL, estrogen, progesterone are produced by

- A. Ovary
- B. Placenta
- C. Fallopain tube
- D. Pituitary

# **Answer: C**



**Watch Video Solution** 

**7.** Fertilisation in humans is practically feasible only if

- A. The sperms are transported into cervix within 48 hrs of release of ovum in uterus
- B. The sperms are tranported into just after the release of ovum in fallopin tube
- C. The ovum and sperm are transproted simultanecusly to ampullay isthmic juction of the fallopain tube
- D. The ovum and sperms are transproted simultaneously to ampullary isthmic

junction of the cervix

**Answer: C** 



**Watch Video Solution** 

**8.** Identify the correct statement on 'inhibin'

A. is produced by nurse cells in testes and

inhibits the sectetion of LH

B. inhibits the secretion of LH, FSH and

prolactin

C. is produced by granulose cells in ovary

and inhibits the secretion of FSH

D. us produced by granulose cells in ovary and inhibits the secretion of FSH

# **Answer: B**



**Watch Video Solution** 

**9.** Changes in GnRH pulse frequency in females is controlled by circulating levels of:

- A. Progesterone and inhibin
- B. Estrogen and progesterone
- C. Estrogen and inhibin
- D. Progesterone only

# **Answer: D**



**Watch Video Solution** 

**10.** Select the incorrect statement :

- A. LH triggers secretion of androgens from the Leydig cells
- B. FSH stimulates the sertoli cells which help in spermiogenesis
- C. LH triggers ovulation in ovary
- D. LH and FSH decrease gradully during the follicular phase

# **Answer: D**



- 11. Ectopic pregnancies are referred to as
  - A. Pregnancies terminated due to hormonal imbalance
  - B. Pregnancies with genetic abnormality
  - C. Implantation of embryo at site other than uterus
  - D. Implantation of defective of embryo in the uterus

**Answer: B** 

**12.** which ot the following events is not associated with ovulation in human female?

A. LH surge

B. Decrease in estradiol

C. Full development of Graafian follicle

D. Retease of secondary occyte

**Answer: C** 



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

A. Birth

**B.** Puberty

C. Fertilization

D. Uterine implantaion

**Answer: A** 



**14.** Which of the following layers in an antral follicle is acellular?

A. Zona Pellucida Granulosa

B. Granulosa

C. Theca interna

D. Stroma

**Answer: A** 



**15.** which of these is not an important component of initiation of parturition in humans?

A. Release of prolctin

B. Increase in estrogen and progesterone ratio

C. Synthesis of prostalandins

D. Release of oxytocin

**Answer: B** 

- 16. Capacitation refers to changes in the
  - A. Sperm after fertiliztion
  - B. Sperm before fertilization
  - C. Ovurm before fertiliaztion
  - D. Ovum after fertilization

#### **Answer: B**



# 17. Hysterectomy is surgcal removal of

- A. Mammary gland
- B. Uterus
- C. Prostate gland
- D. Vas-deference

**Answer: D** 



**18.** which of the following cells during gametogenesis is normlly diploid?

- A. Secondary polar body
- B. Primary polar body
- C. Spermatid
- D. Spermatogonia

**Answer: B** 



**19.** The main function fo mammalian corpus luteum is to produce

- A. Estrogen only
- B. Progesterone
- C. Human chorionic gonadotropin
- D. Relaxin only

**Answer: D** 



# 20. Menstrual flow occurs due to lack of

- A. FSH
- B. Oxytocin
- C. Vasopressin
- D. Progesterone

# **Answer: D**



**21.** what is the correct sequence of soerm formation

A. Spermatogonia, spermatocyte, spermatocyte, spermatocyte spermatid

B. Spermatogonia , spermatozoa,

Spermatocyte, spermatid

C. Spermatogonea , spematocyte,

spermatid, spermatozoa

D. Spermatid , spermatocyte

spermatogonia, spermatozoa

**Answer: C** 



**Watch Video Solution** 

**22.** which one of the following is not the function of placenata?

A. Secretes estrogen

- B. Faccilitates removal of carbon dioxide and waste material from embryo
- C. Secretes oxytocin during parturition
- D. Facdilitates supply of oxygen and nutrients to embryo

# **Answer: C**



- **23.** In a normal pregnat woman, the amount of total gonadoropin activity was assessed. The result expected was
  - A. High level of circulating HCG to stimulate estrogen and progesterone sythesis
    - B. Hige level of circulating FSH and LH in the uterus to stimultate implantion of the embryo

C. High level of circulating HCG to

stimulate endometrial thickening

D. High levles of FSH and LH uterus to stimulate endometrial thickening

**Answer: A** 



**Watch Video Solution** 

24. Singnals for partiurition originate from

A. Fully developed foetus only

B. Both placents as well as fully developed foetus

C. Oxytocin released from maternal pituitary

D. Placenta only

**Answer: B** 



- **25.** which one of the following statements is false in respect of viability of mammalian sperm?
  - A. Sperms must be concentrated in a thick suspension
  - B. Sperm is viable for only up to 24 hours
  - C. Survival of sperm depends on the pH of the medium and is more active in alkaline medium

D. Viability of sperm is determined by its motility

**Answer: B** 



**Watch Video Solution** 

**26.** The secretory phase in the human menstrual cycle is also called

A. Follcular phase and lasts for about 13 days

- B. Luteal phase and lasts for about 6 days
- C. Follicular phase lasting for about 6 days
- D. Luteal phase and lasts for about 13 days

#### **Answer: D**



**Watch Video Solution** 

**27.** The Leyding cells as found in the human body are the secretory source of

A. Glucagon

- B. Androgens
- C. Progesterone
- D. Interstinal mucus

#### **Answer: B**



**Watch Video Solution** 

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

- A. Providing a secondary sexual feature for exhibiting the male sex
- B. Maintaining the scrotal temperature lower than the internal body temperature
- C. Escaping any possible compression by the visceral organs
- D. Providing more space for the growth of epdidymis

# Answer: B

**29.** If for some reason the vasa efferentia in the human reproductive system get blocked .

The gametes will not be transported from

- A. Vagina to uterus
- B. Testes to epididymis
- C. Epididymis to vas deferens
- D. Ovary to uterus

Answer: B

**30.** What happens during fertilisation in humans after many sperms reach close to the ovum?

- A. Cells of corona radiata trap all the sperms except one
- B. Only two sperms nearest the ovum penetrate zona pellucida

C. Secretion of acrosome helps one sperm enter cytoplasm of ovum through zona pellucida

D. All sperms except the one nearest to the ovum lose their tails

# **Answer: C**



**31.** About which day in a normal human menstrual cycle does rapid secretion of LH (Popularly called LH- surge ) normally occurs

- A. 15th day
- B. 11th day
- C. 14th day
- D. 20th day

#### **Answer: C**



**32.** Which one of the following conditions of the zygotic cell would lead to the birth of a normal human female child?

- A. Only one X- chromosome
- B. One X and one Y chromosome
- C. Two X chromosome
- D. Only one Y chromosome

#### **Answer: C**



# 33. Ureters act as urinogenital ducts in

- A. Frog's both males and females
- B. Frog's males
- C. Human males
- D. Human females

**Answer: B** 



**34.** Second maturation division of mammalian ovum occurs

A. In the Graaflan follicle following the first maturation division

B. Shortly after ovulation before the ovum makes entry into the Falloplan tube

C. Until after the ovum has been penetrated by a sperm

D. Until the nuclesu of the sperms has

fused with that of the ovum

**Answer: C** 



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**35.** Which one of the following statements about human sperm is correct?

A. Acrosome serves no particular function

- B. Acrosome has a conical pointed structure used for plercing and penetrating the egg resulting in fertilization
- C. The sperm lysings in the acrosome dissolve the egg envelope faciliating fertilization
- D. Acrosome serves as a sensory structure leading the sperm towards the ovum

# Answer: C

# 36. Sertoli cells are found in

- A. Pancreas and secrete cholecytokinin
- B. Ovaries and secrete progesterone
- C. Adrenal cortex and secrete adrenaline
- D. Seminiferous tubules and provide nutrition to germ cells

**Answer: D** 

**37.** Vasa efferentia are the ductules leading from

A. Epididymis to urethra

B. Testicular lobules to rete testis

C. Rete testis to epididymis

D. Vas deferens to epididymis

## **Answer: C**



# 38. Seminal plasma in human males is rich in

- A. Ribose and potassium
- B. Fructose and calclum
- C. Glucose and calcium
- D. DNA and testosterone

### **Answer: B**



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

- A. Third month
- B. Fourth month
- C. Fifth month
- D. Sixth month

#### **Answer: C**



**40.** The part of Falloplan tube closest to the ovary is

A. Ampulla

B. Isthmus

C. Infundibulum

D. Cervix

**Answer: C** 



**41.** In human famale the blastocyst before A. Forms placenta even implantation B. Gets implanted into uterus 3 days after ovulation C. Gets nutrition from uterine endometrial secretion only after implantation D. Gets implanted in endometrium by the trophoblast cells Answer: D

**42.** Which one of the following statements about morula in humans is correct?

A. It has more cytoplasm and more DNA than an uncleaved zygote

B. It has almost equal guantity of cytoplasm as an uncleaved zygote but much more DNA

C. It has far less cytoplasm as well as less

DNA than in an uncleaved zygote

D. It has more of less equal quantity of cytoplasm and DNA as in uncleaved zygote

## Answer: B



**43.** Signals from fully developed foetus and placenta ultimately lead to parturition which requires the release of

- A. Estrogen from placenta
- B. Oxytocin from maternal pituitary
- C. Oxytocin from foetal pituitary
- D. Relaxin from placenta

### **Answer: B**



**44.** Secretion from which one of the following are rich in fruclose, calcium and some enzymes?

A. Male accessory glands

B. Liver

C. Pancreas

D. Salivary glands

**Answer: A** 



**45.** Foetal ejection reflex in human female is induced by

- A. Release of oxytocin from pituitary
- B. Fully developed foetus and placenta
- C. Differentiation of mammary glands
- D. Pressure exerted by amniotic fluid

**Answer: B** 



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

A. Pattern of cleavage

B. Number of blastomers produced

C. Fertilization

D. Formation of zygote

## **Answer: A**



- **47.** Which one of the following is the correct matching of the events occurring during menstrual cycle?
  - A. Proliferative phase : Rapid regeneration of myometrium and maturation of Graafian follicle
  - B. Development of : Secretory phase corpus

    luteum and increased secretion of

    progesterone

C. Menstruation : Breakdown of

myometrium and ovum not fertilised

D. Ovulation: LH and FSH attain peak level and sharps fall in the secretion of progesterone

## Answer: B



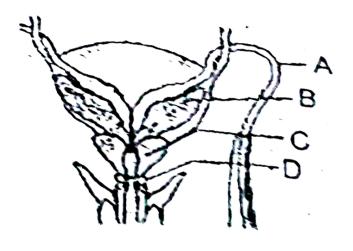
48. Seminal plasma in human is rich in

- A. Fructose and calcium but has no enzymes
- B. Glucose and certain enzymes but has no calcium
- C. Fructose and certain enzymes but poor in calcium
- D. Fructose calcium and certain enzymes

### Answer: D



**49.** Given below is a diagrammatic sketch of a portion of set of the names of the parts labelled A,B,C,D



A. A - Vas deferens B- Seminal vesicle

C - Prostate D - Bulbourethral gland

B. A -Vas deferens B-Seminal vesicle

C-Bulbourethral D-Prostate

C. A - Ureter B - Seminal vesicle

C- Prostate D - Bulbourethral gland

D. A - Ureter B- Prostate

C - Seminal vesicle D- Bulbourethral

gland

### Answer: A



- **50.** Which one of the following is the most likely root cause why menstruation is not taking place in regularly cycling human female?
  - A. Maintenance of the hypetrophical endometerial lining
  - B. Maintenance of high concentration of sex hormones in a the blood stream
  - C. Retention of well developed corpus

D. Fertilisation of the ovum

**Answer: D** 



**Watch Video Solution** 

**51.** In human at the end of the first meiotic division the male germ cells differentiate into the

A. Spermatogonia

B. Primary spermatocytes

- C. Secondary spermatocytes
- D. Spermatids

**Answer: C** 



**Watch Video Solution** 

**52.** Which extraembryonic membrane in humans prevents desiccation of the embryo inside the utrerus ?

A. Amnion

- B. Chorion
- C. Allantois
- D. Yolk sac

#### **Answer: A**



**Watch Video Solution** 

**53.** In human females menstruation can be deferred by adminstration of

A. FSH only

- B. LH only
- C. Combination of FSH and LH
- D. combination of estrogen and progesterone

### **Answer: D**



**Watch Video Solution** 

**54.** Which part of the ovary in mammals acts as an endocrine gland after ovulation?

- A. Vitelline membrane
- B. Graafian follicle
- C. Strome
- D. Germinal epithelium

### **Answer: B**



**Watch Video Solution** 

**55.** Sertoli cells are regulated by the pituitary hormone known as

A. FSH only

B. GH

C. Protactin

D. LH

## Answer: A



**Watch Video Solution** 

**56.** Grey crescent is the area

A. At the point of entry of sperm into ovum

B. Just opposite to the site of entry of sperm into ovum

C. At the animal pole

D. At the vegetal pole

### **Answer: B**



**Watch Video Solution** 

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

- A. Corpus luteum will disintegrate
- B. Estrogen secretion further decreases
- C. Primary follicle starts developing
- D. Progesterone secretion rapidly decline

#### **Answer: C**



**Watch Video Solution** 

**58.** Which of the following best illustrates feedback in development ?

- A. As tissue ( X ) develops it secretes something that slows down the growth of tissue (Y)
- B. Tissue (X) secretes RNA which changes the development of tissue (Y)
- C. As tissue ( X) develops it secretes enzymes that inhibit the development of tissue (Y)
- D. As tissue ( X) develops it secretes something that induces tissue (Y) to

develop

**Answer: D** 



Watch Video Solution

**59.** the number of autosomes in human primary spermatocyte is

A. 46

B. 44

C. 23

D. 22

## **Answer: B**



**Watch Video Solution** 

# **60.** Corpus luteum releases

- A. Estrogen
- B. Progesterone
- C. Estrogen and progesterone
- D. Androgen

## **Answer: C**



# **Watch Video Solution**

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

- A. Uterus
- B. Vagina
- C. Vulva
- D. Oviduct

#### **Answer: B**



- **62.** Primary spermatocyte differe from spermatogonium in
  - A. Number of chromosomes
  - B. Size and volume
  - C. DNA content
  - D. Size of chromosomes

#### **Answer: B**



**Watch Video Solution** 

## **63.** In human cleavage division are

- A. Slow and synchronous
- B. Fast and synchronous
- C. Slow and asynchronous
- D. Fast and asynchronous

**Answer: C** 

## 64. Bartholin's glands are situated

A. On the sides of the head of some amphiblans

B. At the reduced tail end of birds

C. On either side of vagina in humans

D. On either side of vas deferens in humans

**Answer: C** 

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

A. The beginning of the cycle of is called menarche

B. During normal menstruation about 40 ml blood is lost

C. The menstrual fluid can easily clot

D. At menopause in female there is especially abrupt increase in gonadotropic hormones

## **Answer: B**



**Watch Video Solution** 

66. In human adult females oxytocin

A. Causes strong uterine contractions during parturation

- B. Is secreted by anterior pituitary
- C. Stimulates growth of mammary glands
- D. Stimulates pituitary to secrete vasopressin

## **Answer: A**



**Watch Video Solution** 

**67.** What is true about cleavage in te fertilized egg in humans ?

A. It starts while the egg is in fallopian tube

B. It starts when the egg reaches uterus

C. It is meroblastic

D. it is identical to the normal mitosis

Answer: A



**68.** The extra embryonic membrane of the mamalian embryo are derived from

- A. Trophoblast
- B. Inner cell mass
- C. Formative cells
- D. Follicle cells

**Answer: A** 



**69.** In the 28 day human ovarian cycle the duration of luteal phase is approximate?

- A. 14 days
- B. 28 days
- C. 30 days
- D. 5 days

**Answer: A** 



## **70.** The mammalian corpus luteum produces

- A. Luteoteropic hormone
- B. Luteinizing hormone
- C. Estrogen
- D. Progesterone

#### **Answer: D**



**71.** Fertilizin is a chemical substance produced from

A. Polar bodies

B. Middle piece of sperm

C. Mature eggs

D. Acrosome

**Answer: C** 



<b>72.</b> In hur	nan being	s the egg are
-------------------	-----------	---------------

- A. Mesolecithal
- B. Alecithal
- C. Microlecithal
- D. Macrolecithal

## **Answer: B**



**73.** In the fertile human female approximately on which day of the menstrual cycle does ovulation take place ?

- A. Day 14
- B. Day 18
- C. Day 1
- D. Day 8

## Answer: A



**74.** Which of the following cells found in testes of rabbit secretes male hormone?

- A. Epithelial cells
- **B. Spermatocytes**
- C. Leydig's cell
- D. Sertoli cells

**Answer: C** 



	75. The middle	piece	of the s	sperms	contains
--	----------------	-------	----------	--------	----------

- A. Proteins
- B. Mitochondria
- C. Centriole
- D. Nuclecus

## **Answer: B**



**76.** After ovulation Graaflan follicle regresses k into

- A. Corpus atersia
- B. Corpus Callosum
- C. Corpus luteum
- D. Corpus albicans

**Answer: C** 



- A. Holoblastic equal
- B. Holoblastic unequal
- C. Superficial
- D. Discoidal

**Answer: A** 



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78. Which set is similar?

- A. Corpus luteum Graaflan follicles
- B. Sebum -sweat
- C. Bundle of His \_ pace maker
- D. Vitamin B Niacin

## **Answer: A**



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**79.** What is true for Cleavage?

A. Size of embryo increases

- B. Size of cells decreases
- C. Size of cells increases
- D. Size of embryo decreases

#### **Answer: B**



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**80.** Ovulation in the human female normally takes place during the menstrual cycle

A. At the mid secretory phase

- B. Just before the end of the secretory phase
- C. At the beginning of the proliferative phase
- D. At the end of the proliferative phase

Answer: D



**81.** 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**



Assignment Section D Assertion Reason Type Question In The Following Question A Statement Of Assertion A Is Followed By A Statement Of Reason R

**1.** A : Failure of testes to descend into the scrotum causes sterility in man .

R: Higher internal body temperature is not suitable for sperm development

A. If both Assertion & Reason are true and the reason is the correct explanation of

the assertion then mark (1)

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)

C. If Assertion is true statement but

Reason is false then mark (3)

D. If both Assertion and Reason are false statement then Mark (4)

**Answer: A** 



**2.** A : Middle piece of sperm is called powerhouse

R: It contains mitochondria

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)

C. If Assertion is true statement but

Reason is false then mark (3)

D. If both Assertion and Reason are false statement then Mark (4)

## **Answer: A**



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**3.** A : Vaginal orifice is partially covered by a membrane called the hymen.

R : It is made up of thick layer of smooth muscle

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)

C. If Assertion is true statement but

Reason is false then mark (3)

D. If both Assertion and Reason are false statement then Mark (4)

**Answer: C** 



**Watch Video Solution** 

**4.** A: The male urethra is longer than the female urethra

R: It carries both urine as well as semen

- A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)
- B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)
- C. If Assertion is true statement but

  Reason is false then mark (3)
- D. If both Assertion and Reason are false statement then Mark (4)

#### **Answer: B**



## **Watch Video Solution**

5. A: In human ovum is alecithal type.

R: is is almost free of yolk.

A. If both Assertion & Reason are true and

the reason is the correct explanation of

the assertion then mark (1)

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)

C. If Assertion is true statement but

Reason is false then mark (3)

D. If both Assertion and Reason are false statement then Mark (4)

## **Answer: A**



- 6. A: Oxytocin acts on the uterine muscles and cause stronger uterine contractions which in turn stimulates further secretion of oxytocinR: Oxytocin is released form maternal pituitary
  - A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)
  - B. If both Assertion & Reason are true but the reason is not the correct explanation

of the assertion then mark (2)

C. If Assertion is true statement but Reason is false then mark (3)

D. If both Assertion and Reason are false statement then Mark (4)

## Answer: B



**7.** 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 & Reason are true and the reason is the correct explanation of the assertion then mark (1)

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)

C. If Assertion is true statement but

Reason is false then mark (3)

D. If both Assertion and Reason are false statement then Mark (4)

# Answer: B



**8.** A : In frog gray cresent is formed during fertilization

R: It is because the black granules move

towards the point of entry of the sperm in animal half

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

the reason is not the correct explanation of the assertion then mark (2)

B. If both Assertion & Reason are true but

C. If Assertion is true statement but

**Answer: A** 



**Watch Video Solution** 

**9.** A: If fertilization occurs the corpus luteum is rescued from regression by human chorionic gonadotropin which is produced by placenta

R: In first trimester the corpus luteum

stimulates by hCG is responsible for the production of progesterone

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

the reason is not the correct explanation of the assertion then mark (2)

B. If both Assertion & Reason are true but

C. If Assertion is true statement but

## **Answer: A**



**Watch Video Solution** 

**10.** A: if both the ovaries are removed after the first trimester of pregnancy still there would be normal growth of foetus.

R : After first trimester placenta secretes sufficient progesterone

- A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)
- B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)
- C. If Assertion is true statement but

  Reason is false then mark (3)
- D. If both Assertion and Reason are false statement then Mark (4)

#### **Answer: A**



# **Watch Video Solution**

11. A: placenta is connected to the embryo through an umbilical cord which helps in the transport of substance to and from the embryo

R: Palcenta acts as an endocrine tissue

A. If both Assertion & Reason are true and the reason is the correct explanation of

the assertion then mark (1)

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)

C. If Assertion is true statement but

Reason is false then mark (3)

D. If both Assertion and Reason are false statement then Mark (4)

**Answer: B** 



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**12.** A : All copulations do not lead to fertilisation and pregnancy .

R: Fertillsation can occur if the ovum and sperms are transported simultaneously to the ampullary - isthmic junction

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)

C. If Assertion is true statement but

Reason is false then mark (3)

D. If both Assertion and Reason are false statement then Mark (4)

#### **Answer: A**



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**13.** A : Lack of menstruation may be indicative of pregnancy

R: Menstruation only occurs if the released ovum is fertilised

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)

C. If Assertion is true statement but

Reason is false then mark (3)

D. If both Assertion and Reason are false statement then Mark (4)

#### **Answer: C**



**Watch Video Solution** 

**14.** A: LH acts on Sertolic cells for release of certain factors reuired for spermatogenesis.

R : Spermiation occurs directly under influence of LH

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)

C. If Assertion is true statement but

#### **Answer: D**



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**15.** A: The first sign of growing foetus may be noticed by listening to the heart sound though the stethoscope.

R: By the end of second month of pregnancy the foetus develops limbs and digits.

- A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)
- B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)
- C. If Assertion is true statement but

  Reason is false then mark (3)
- D. If both Assertion and Reason are false statement then Mark (4)

#### **Answer: B**



# **Watch Video Solution**

**16.** A: Leyding 's cells synthesise and secrete festicular hormones called androgens .

R: Leyding's cells are located between the Sertoli cells

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)

C. If Assertion is true statement but

Reason is false then mark (3)

D. If both Assertion and Reason are false statement then Mark (4)

#### **Answer: C**



**Watch Video Solution** 

**17.** A: In spermatogenesis the first haploid forms are spermatids.

R : All the end of meiosis cells have haploid set of chromosomes

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)

C. If Assertion is false statement but

Reason is true then mark (3)

D. If both Assertion and Reason are false statement then Mark (4)

#### **Answer: D**



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**18.** A : Presence or absence of hymen is not a reliable inducator of virginity or sexual experience .

R: It can be broken down by a sudden fall or jolt insertion of a vaginal tampon or active participation in some sports like horse riding.

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

the reason is not the correct explanation of the assertion then mark (2)

B. If both Assertion & Reason are true but

C. If Assertion is true statement but

Reason is false then mark (3)

D. If both Assertion and Reason are false statement then Mark (4)

## **Answer: A**



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**19.** A : After menopause the levels of blood gonadotropins will rise markedly .

R : At the time of menopause all the ovarian

follicles are converted into follicular atresia and the ovaries are not responding to the gonadotropins

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

the reason is not the correct explanation of the assertion then mark (2)

B. If both Assertion & Reason are true but

C. If Assertion is true statement but

Reason is false then mark (3)

D. If both Assertion and Reason are false statement then Mark (4)

### Answer: B



**20.** A: The secretions of male accessory glands constitute the seminal plasma which is rich in fructose calcium and certain enzymes.

R : Fructose serves as a source of energy for the sperms

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)

C. If Assertion is true statement but

## **Answer: B**



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**21.** A : Corpus luteum begins to atrophy after a short life of 10 to 14 days , if fertilisation does not occur

R: Luteolysis birds possess only the left ovary

and left oviduct for conveying the ovum released from the ovary.

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

the reason is not the correct explanation of the assertion then mark (2)

B. If both Assertion & Reason are true but

C. If Assertion is true statement but

#### **Answer: B**



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**22.** A: Most birds posses only the left ovary and left oviduct for conveying the ovum released from the ovary

R: The avian ovary does not form a corpus

luteum from the ruptured ovarian follicle which undergoes rapid shrinkage .

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

the reason is not the correct explanation of the assertion then mark (2)

B. If both Assertion & Reason are true but

C. If Assertion is true statement but

### **Answer: B**



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**23.** A: The most immediate effect of FSH is the maturation of existing late primary or secondary follicle.

R: A rising level of FSH causes the developing

egg within the follicle to complete the first meiotic division to form a secondary oocyte.

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

the reason is not the correct explanation of the assertion then mark (2)

B. If both Assertion & Reason are true but

C. If Assertion is true statement but

**Answer: A** 



**Watch Video Solution** 

**24.** A: The morula passes through the phase of compaction produces two major type of cells: the peripheral cells and the inner cell mass.

R: The descendants of inner cell mass becomes the trophoblast cells.

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

B. If both Assertion & Reason are true but

the reason is not the correct explanation of the assertion then mark (2)

C. If Assertion is true statement but

### **Answer: C**



**Watch Video Solution** 

**25.** A : Developments is the emergence of a multicellular organism from a single group of cells

R : Development involves growth differentiation and morphogenesis

- A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)
- B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)
- C. If Assertion is true statement but

  Reason is false then mark (3)
- D. If both Assertion and Reason are false statement then Mark (4)

#### **Answer: B**



# **Watch Video Solution**

**26.** A : Synthesis of milk is stimulated by rise in the level of oxytocin

R : Oxytocin is released from the adenohypophysis under influence of hypothalamus .

A. If both Assertion & Reason are true and

the reason is the correct explanation of

the assertion then mark (1)

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)

C. If Assertion is true statement but

Reason is false then mark (3)

D. If both Assertion and Reason are false statement then Mark (4)

**Answer: D** 



**27.** A: Blastocyst undergoes gastrulation to produce the three germinal layers.

R: This involves cell movements (
morphogenetic movement) that eventually
help to attain new shape and morphology of
embryo

A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)

B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)

C. If Assertion is true statement but

Reason is false then mark (3)

D. If both Assertion and Reason are false statement then Mark (4)

#### Answer: B



- **28.** A: The scrotum acts as temperature regulator for the testes
- R: Wall of scrotum is supported by dartos muscles which help in positioning of testes
  - A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)
  - B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)

C. If Assertion is true statement but

Reason is false then mark (3)

D. If both Assertion and Reason are false statement then Mark (4)

### **Answer: C**



**29.** A : Fertilin protein is present in the egg membrane

R: it helps in agglutination reaction .

- A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)
- B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)
- C. If Assertion is true statement but

  Reason is false then mark (3)
- D. If both Assertion and Reason are false statement then Mark (4)

#### **Answer: D**



## **Watch Video Solution**

**30.** A: Corticotrophin releasing hormone is a a part of the clock that establishes the timing of birth .

R: The signals for parturition originate from the fully developed foetus and placenta which induce mild uterine contractions called foetal ejection reflex.

- A. If both Assertion & Reason are true and the reason is the correct explanation of the assertion then mark (1)
- B. If both Assertion & Reason are true but the reason is not the correct explanation of the assertion then mark (2)
- C. If Assertion is true statement but

  Reason is false then mark (3)
- D. If both Assertion and Reason are false statement then Mark (4)

#### **Answer: B**



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# **Try Yourself**

- 1. If the vas deferentia of both the sides is cut and tied by thread then what would happen
- A. This will prevent gamete formation
- B. this will block gamete transport and thereby prevent conception
- C . Semen is without sperms

D. The production of testosterone will stop

Which of the following option is correct

A. A & D only

B. A & B only

C. B & C only

D. B ,C & D only

### **Answer: C**



2. Ovum released from ovary and is transported to the fallopian tube for fertilisation . Trace the correct path the egg and embryo takes from ovary to uterus .

A. Ovum 
$$ightarrow$$
 Abdominal cavity  $ightarrow$ 

Ampulla ightarrow Isthmus ightarrow Infundibutum

$$ightarrow$$
 Uterus

B. Ovum ightarrow Abdominal cavity ightarrow

Infundibulum ightarrow Ampulla ightarrow Isthmus

ightarrow Uterus

C. Ovum  $\;
ightarrow \; Abdo \; {
m min} \; alcavity \; {
m to} \; Isth\mu s$ 

to  $Amp\underline{l}a$ to $Infundib\underline{u}m$ to `Uterus

D. Ovum ightarrow Abdominal cavity ightarrow

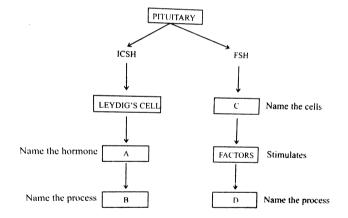
Flmbriae ightarrow Isthmus ightarrow Ampulla ightarrow

Uterus

**Answer: B** 

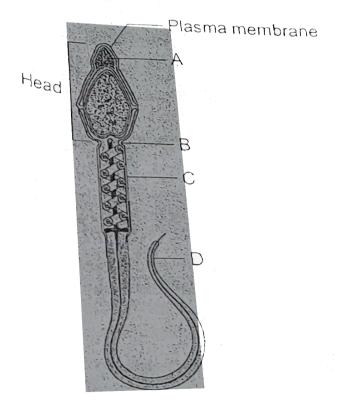


**3.** Given below is an incomplete flow chart showing influence of hormones on gametogenesis in males. Observe the flow chart carefully and fill in the blanks A,B,C and D.





**4.** The diagram below shows a mature human sperm cell .Select the option which has correct explanation of any two structures labelled as A,B,C and D



Choose the correct option:

A. A : Acrosome which is filled with enzymes

that help in fertilisation

B : Neck has proximal centriole which forms the axial filament of tail

B. A: Acrosome which is filled with enzymes

that help is fertilisation

C: Middle piece contain mitochondria which supply energy

C. C: Neck with two centrioles

D: Tail for the movement of sperm

D. A: Nucleus containing chromosomal

material

C: Tail for the movement of sperm

#### **Answer: B**



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**5.** When do the egg cells of a human female begin meiosis?

A. Before she is born

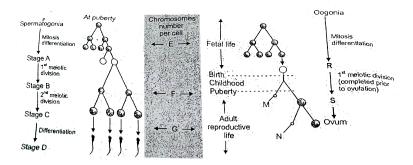
- B. During ovulation
- C. At the start of puberty
- D. During menstruation

#### **Answer: A**



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**6.** From the given diagram of human gametogenesis answer the following :



- A. Name the stages A,B,C and D
- B. Write the number of chromosomes in E,

F and G

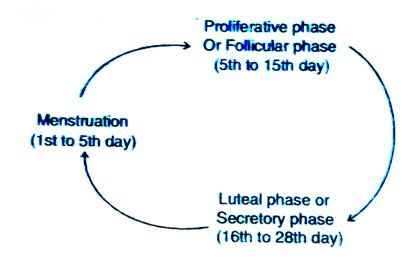
- C. What are M and N
- D. What does R and S represent

#### **Answer:**



- 7. The events of the menstrual cycle are represented below. Answer the questions following the diagram.
- (i)State the levels of FSH, LH and Progesterone simply by mentioning high or low, around 13th and 14th day and 21st to 23 rd day.
- (ii)In which of the above mentioned phases does the egg travel to the fallopian tube ?
- (iii)Why is there no menstruation upon

#### fertilization?





**8.** Read the praph given below and correlate the uterine events that take place according to the hormonal levels on



- A. 6th to 15th day
- B. 16th to 25th day
- C. 26th to 29th day if fertilisation does not occur
- D. Specify the hormones labelled as A and B in the graph

### Answer:



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**9.** In which part to human female reproductive system implantation takes place ?



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**10.** From which part of blastocyst does an embryo develop



**11.** Mention the fate of inner cell mass after implantation in uterus.



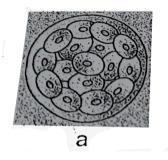
**Watch Video Solution** 

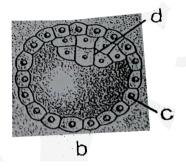
**12.** What is the other name of trophoblast cells lying over the embryonic disc?



**13.** Which germ layer forms nervous system eye pituitary gland and intermal ear







- (i) Identify the stage a and b
- (ii) Name the structures c and d
- (iii) In which stage implantation occurs



**15.** Following fertilisation cleavage begins while the zygote is in :

A. An ovary

B. The placenta

C. The uterus

D. The fallopian tube

#### **Answer: D**



**16.** By the end of the first trimester which of the following has occurred in the foetus

A. the fetus uses its lungs to breathe

B. The brain of foetus is fully developed

C. Most of the major organ system are formed

D. The first movements of the foetus occur

**Answer: C** 

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17. There is no menstruatin during pregnancy.

This is due to high levels of \_\_\_\_\_

A. Estrogen

B. Progesterone

C. Gonadotropins

D. GnRH

**Answer: B** 



