



### **BIOLOGY**

## **BOOKS - AAKASH SERIES**

## **HUMAN REPRODUCTION**



## **1.** Genetic recombination is possible only

through

### A. Budding

- B. Asexual reproduction
- C. Sexual reproduction
- D. Fragmentation

#### Answer: C

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#### 2. In humans

A. Andropause is earlier than menopause

B. Menopasue is earlier than andropause

C. Menopause and andropause occur

simultaneously

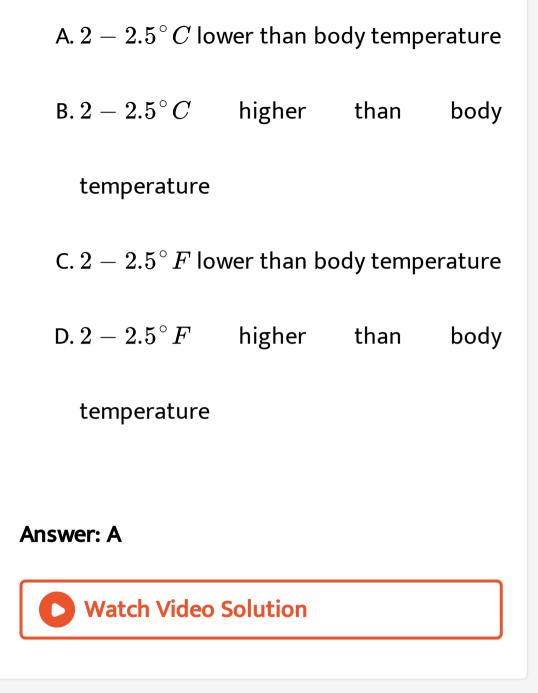
D. Andropause and menopause are absent

Answer: B

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3. For spermatogenesis the temperature in the

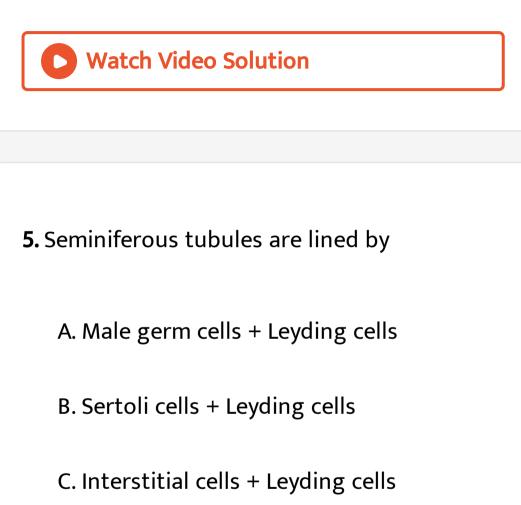
scrotum is



4. Each testis has how many lobules?

- A. 250 seminiferous tubules within 3 testicular lobes B. 250 testicular lobules with 3 seminiferous tubules in each lobule C. 250 testicular lobes with 3 spermatic ducts in each
- D. 250 spermatic ducts with in 3 testicular





D. Male germ cells + Sertoli cells

Answer: D



## **6.** The nutritive cells found in seminiferous tubules are

A. Leyding cells

B. Sertoli cells

C. Spermatogonia

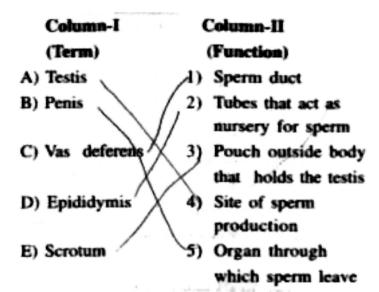
D. Spermatozoa

#### Answer: B



**7.** Match the terms column-I with their functions in column-II and select the correct

option



#### Answer: B

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#### 8. Androgens are secreted by

A. Leyding cells

B. Sertoli cells

C. Male germ cells

D. Rete testis

#### Answer: A



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

A. Ret testis

B. Epididymis

C. Vasa efferentia

D. Isthmus

Answer: D

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**10.** 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: B

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# **11.** Which of the male accessory glands secretions lubricates penis

A. Seminal vesicles

B. Prostates glands

C. Bulbourethral glands

D. Phallic galnds

Answer: C

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

A. Fore skin

B. Mons pubis

C. Rete testis

D. Scrotum

Answer: A

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

contributed by

(i)Seminal vesicle , (ii)Prostate , (iii)Urethra , (iv)

Bulbourethral gland

A. i and ii

B. i, ii and iv

C. ii, iii and iv

D. i and iv

Answer: B

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14. Urethral meatus refers to the

A. Urinogenital duct

B. Opening of vas deferens into urethra

C. External opening of the urinogenital

duct

D. Muscles surrounding the urinogenial

duct

#### Answer: C

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15. Testes of man occur

- A. inside the abdomen
- B. in scrotal sacs
- C. above the dorsal aorta
- D. on the sides of kidney

Answer: B

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16. Which one of the following is not a male

accessory gland?

- A. Seminal vesicle
- B. Ampulla
- C. Prostate
- D. Bulbourethral gland

Answer: B

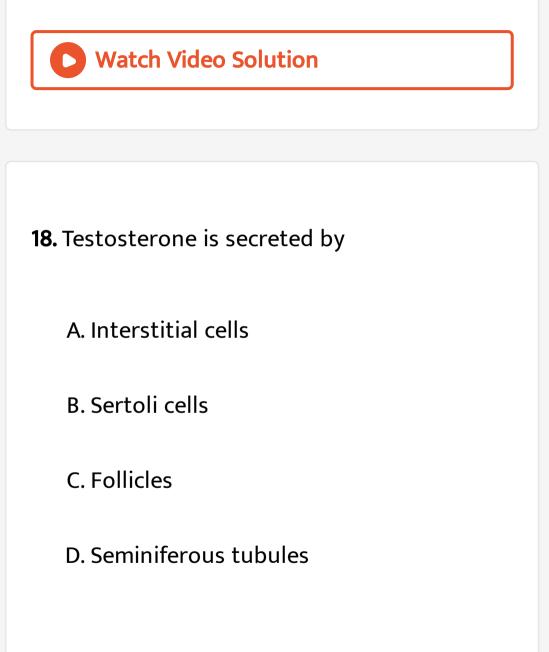
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**17.** The correct flow of sperms includes

A. Seminiferous tubules - vasa efferentia retetestis - epididymis - vasdeferens B. Seminiferous tubules - retetestis - vasa efferentia -epididymis - vasdeferens urethra C. Seminiferous tubules - seminal vesicles vasa efferentia - epididymis vasdeferens. D. Seminal vesicles - vasdeferens - vasa

efferentia - epididymis - retetestis





Answer: A



- 19. 'Urethral meatus' is
  - A. the terminal opening of penis
  - B. the terminal opening of urinary bladder
  - C. the terminal opening of vasdeferens
  - D. the male urethral canal

Answer: A



20. The male external genitalia includes

A. Mons pubis

B. Penis

C. Labia majora

D. Labia minora

**Answer: B** 

**21.** The following are associated with male reproductive system except.

A. Seminal vesicle

B. Prostate gland

C. Bulbourethral glands

D. Bartholin's glands

#### Answer: D

**22.** Secretions of all these are required for maturation and motility of sperms except.

A. Vas deference

B. Seminal vesicle

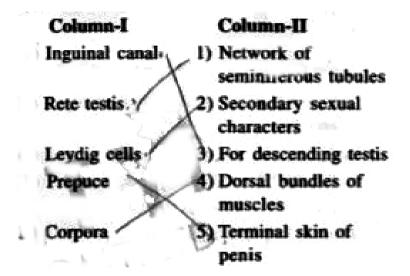
C. Vas efference

D. Prostate gland

Answer: C

#### 23. Match the items of Column-I with those in

Column-II



A. A = 1, B = 2, C = 3, D = 5, E = 5

B. A = 3, B = 1, C = 4, D = 2, E = 5

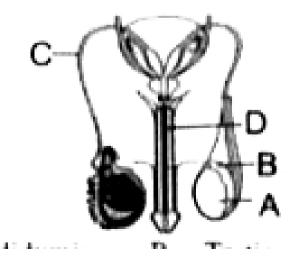
C. A = 2, B = 4, C = 3, D = 5, E = 1

D. A = 3, B = 1, C = 2, D = 5, E = 4

#### Answer: D



**24.** In the diagram of human male reproductive system, the different parts have been indicated by alphabets. Choose the correct match.





**25.** The following include primary sexual organs

A. Testes ovaries & sex hormones

B. Testes, ovaries & genital ducts

C. Genital glands & genital ducts

D. Only Testes & ovaries

#### Answer: D





**26.** 'The genital ducts and associated genital glands' together form

A. primary sexual organs

B. secondary sexual organs

C. accessory secondary sexual organs

D. External organs

Answer: C

27. Accessory gland in the following

A. Epididymis

B. Uterus

C. Prostate gland

D. Testosterone

Answer: C

28. The period in which appearence of

secondary sexual character is called

A. Eunich

B. menarche

C. menopause

D. puberty

Answer: D

**29.** 'Spermatic cord' Joins the

A. Testis with ventral abdominal wall

- B. Testis with dorsal abdominal wall
- C. Scrotal sacs ventral abdominal wall
- D. Scrotal sacs dorsal abdominal wall

Answer: B

**30.** Coelomic fluid is present between the layers of

A. Tunica vaginalis

B. Tunica vaculosa

C. Tunica albuginea

D. Tunica externa

Answer: A

**31.** At the age of 280 days in the embryo the testes descend permanantly into the scrotal sacs through

A. volkaman's canals

B. maurer's canals

C. Inguinal canals

D. Haverstion canals

#### Answer: C

32. Cryptorchidism is

A. failure of development of testes

B. failure of descending testes in to scrotal

sacs

C. failure of development of scrotum

D. failure of production sperms

Answer: B

#### 33. Testis is attached to the scrotal sac by

A. Gubernaculum

- B. Spermatic cord
- C. Septum scroti
- D. Raphae

Answer: A



**34.** Vasa efferentia end in and vasa deferentia start from the following regions of epididymis respetively.

- A. Caput epididymis & cauda epididymis
- B. Caput epididymis & carpus epididymis
- C. Cauda epididymis & caput epididymis
- D. Cauda epididymis & carpus epididymis

#### Answer: A

35. The part of the urethra that is surrounded

by carpus spongiosum

A. Urinary urethra

B. Prostatic urethra

C. Membranous urethra

D. Penile urethra

Answer: D

**36.** The following accessory glands of male reproductive system removal leads to generally sterelity in males

A. Seminal vesicle

B. Bartholin glands

C. Prostate gland

D. Cowpers' glands

## Answer: C

**37.** The following are the two statements regarding prostate gland in man:

(a) The secretion of prostate glands is slightly acidic.

(b) Seminal plasma contains citric acid.

Of the above statements, which one of the

following options is correct?

A. Both (a) and (b) are correct

B. Only (a) is correct but (b) is false

C. Only (b) is correct but (a) is false

D. Both (a) and (b) are false





# **38.** The fluid secreted by seminal vesicle mixes with the sperm for the first-time in

A. Urethra

B. Vas deferens

C. Vagina

D. Ejaculatory duct

#### Answer: D



39. The testis

A. is covered by a serous membrane called

tunica albuginea

B. is divided into testicular lobules that

contain seminiferous tubules

C. contains Leydig cells that provide nutrition to the germ cellsD. produces spermatogonia from

spermatocytes

Answer: B

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40. The scrotum

A. is a pouch of skin outside the abdominal cavity that encloses testes in all mammals. B. contains detrusor muscle whose contraction moves the testes closer to the body during winter. C. is covered externally by a serous membrane called tunica vaginalis. D. maintains temperature of testes lower than core body temperature.

### Answer: D



**41.** The shared terminal duct of the urinary system and the male reproductive system in human beings is

- A. Ductus deferens
- B. Ejaculatory duct
- C. Urethra
- D. Epididymis





**42.** Which of the following is correct regarding testicular lobule ?

A. It contains one to three seminiferous tubules

B. It is covered by a dense covering

C. It is formed by the extensions of tunica

vaginalis

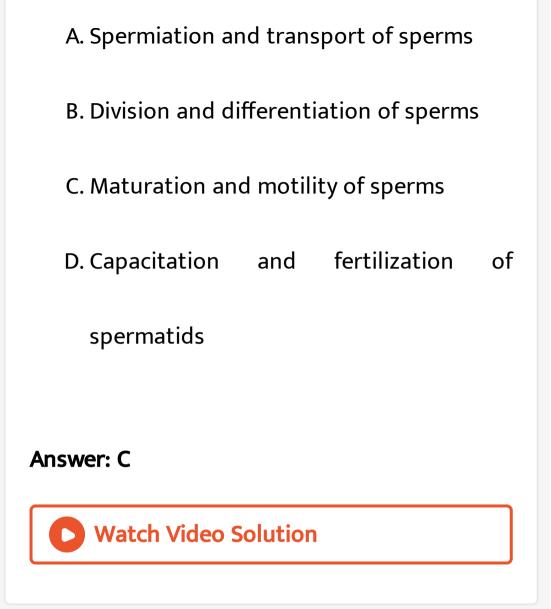
D. The sperms released by spermiation

swim here

Answer: A

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**43.** Secretions of epididymes, vas deferens, seminal vesicle and prostate gland are essential for



44. Sertoli cells are found in

A. Pancres and secrete cholecystokinin

# B. Ovaries and secrete progesterone

C. Adrenal cortex and secrete adrenaline

D. Seminiferous tubules and secrete ABP

and inhibin

Answer: D

45. Read the following statements

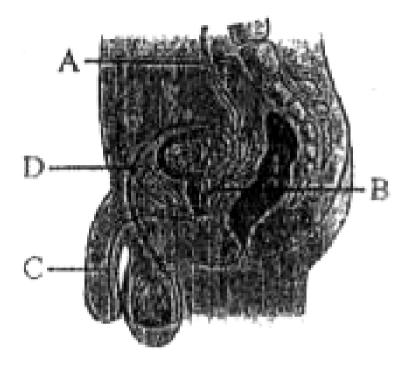
- a) It is paried structure
- b) It is present on lateral side of male urethra
- c) It help in lubrication of penis
- In above statements 'It' refers to
  - A. Seminal vesicle
  - B. Bartholin gland
  - C. Bulbourethral gland
  - D. Prostate

Answer: C



# **46.** It is a diagrammatic sectional view of male reproductive system, In which identify common duct which forms from the fusion of

# duct of seminal vesicle and vasdeferens



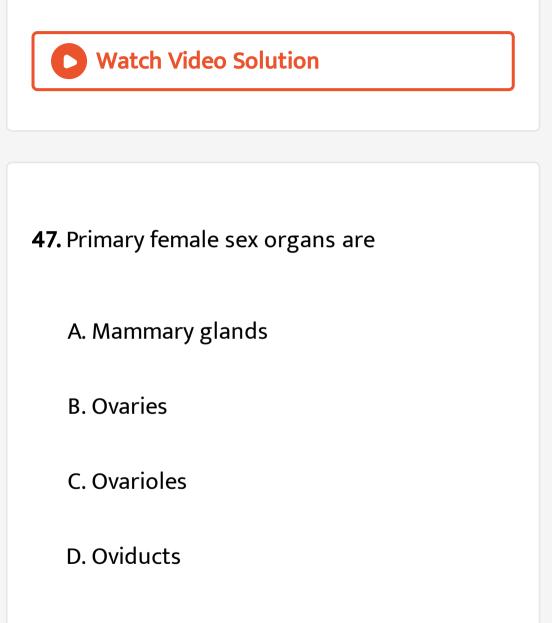
A. A

**B.** B

C. D

D. C





Answer: B



# 48. The inner part of stroma of ovary is

A. Cortex

B. Mesovarium

C. Medulla

D. Germinal epithelium

Answer: C

49. 'Fimbriae' are

A. Finger like projections of uterus

B. Finger like projections of edges of infundibulum

C. Finger like projections of edges of Ampulla

D. Finger like projections of edges of Isthmus

#### Answer: B



**50.** Match the terms column-I with their functions in column-II and select the correct option

Column-I	Column-II
(Term)	(Function)
A) Testis	Sperm duct
B) Penis (2)	Tubes that act as
	nursery for sperm
C) Vas deferents (X 3)	Pouch outside body
XX	that holds the testis
D) Epididymis $X$ 4)	Site of sperm
	production
E) Scrotum 5)	Organ through
and the state	which sperm leave

D. A = 3, B = 1, C = 5, D = 2, E = 4

#### Answer: D

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**51.** The last part of the oviduct which has a narrow lumen and joins the uterus is

A. Ampulla

B. Infundibulum

C. Isthmus

D. Diverticulum

Answer: C

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**52.** 'Cervix' is

A. A narrow opening of uterus into vagina

B. A narrow opening of vagina into the exterior
C. A narrow opening of uterus into vestibule
D. A narrow opening of vagina into

vestibule

Answer: A

53. Birth canal is formed by

A. Vagina and uterus

B. Cervical canal and uterus

C. Cervical canal and vagina

D. Vestibule and vagina

Answer: C

**54.** Inverted pear shaped structure in the following

A. Uriniary baldder

B. Seminal vesicle

C. Gall bladder

D. Uterus

Answer: D

# 55. 'Womb' consists of

A. Perimetrium as inner layer

B. Endometrium as outer layer

C. Striated muscle layer

D. Myometrium as middle layer

Answer: D



56. 'Viginal opening' lies

- A. Between the labia minora
- B. Above the monspubis
- C. Outer to the labia majora
- D. Above the clitoris

Answer: A

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**57.** 'Hymen' is

A. an indicator of virginity or sexual

experience

B.a thin membrane that covers the

urethral orifice

C. a membrane that partially covers the

vaginal orifice

D. a supporting structure to clitoris

Answer: C

58. Mammary glands are

A. Functional in both men and women

B. Absent in males

C. Functional in only females

D. Functional in all mammals

Answer: C

**59.** Match the terms column-I with their functions in column-II and select the correct option

Column-1	Column-II
A) Graafian follicle	1) A fold of mucous
X	covering vaginal orifice.
B) Hymen	(2) Inner folds of skin
X	within the vestibule
C) Labia minora 🗸	3) Mucous membrane
$\wedge$	lining the uterus.
D) Clitoris	4) A mature follicle in a
	mammalian ovary.
E Endometrium	5) Erectile body in the

A. A = 4, B = 3, C = 5, D = 2, E = 1

B. A = 1, B = 3, C = 2, D = 5, E = 4

#### Answer: D

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60. Each mammary gland consists of

A. Glandular tissue and variable amount of

fat

B. Glandular tissue and fibrous tissue

C. Muscular tissue and fibrous tissue

D. Only glandular tissue

Answer: A

- 61. Milk is secreted by
  - A. Mammary ampullae
  - B. Mammary bulbs
  - C. Mammary tubules
  - D. Mammary alveoli

#### Answer: D

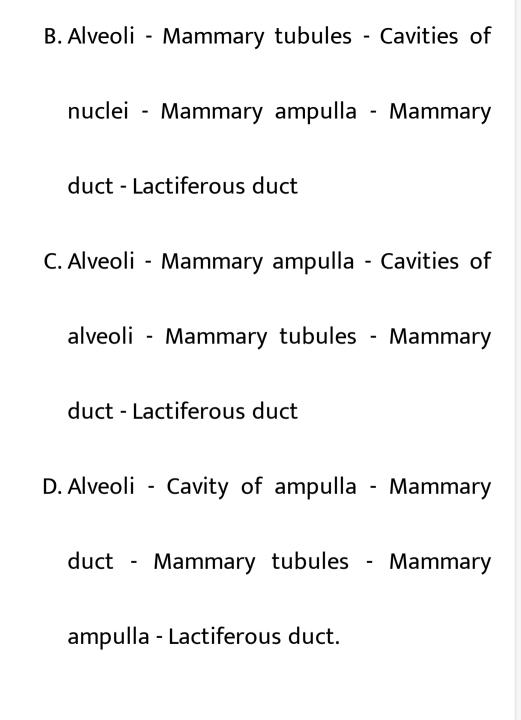


**62.** Which of the following indicates the correct flow of milk until the milk is sucked out by infant

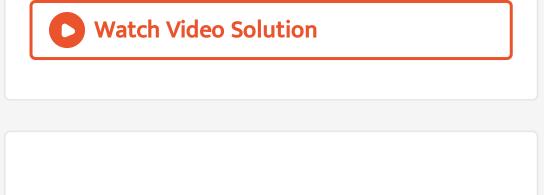
A. Alveoli - Cavities of alveoli - Mammary

tubules - Mammary duct - Mammary

ampulla - Lactiferous duct.



Answer: A



- 63. Ovaries are located in
  - A. Ovarian pouches
  - B. lower abdomen one on each side
  - C. upper abdomen one on each side
  - D. lower abdomen both on left side

Answer: B

**64.** The stroma of ovary is divided into

A. outer medulla and inner cortex

B. outer interstitial tissue and inner

tubules

C. outer cortex and inner medulla

D. outer tubules and inner medulla

Answer: C

**65.** The 'fimbriae' are involved in

A. collection of sperms

B. collection of ova

C. collection of zygote

D. collection of coelomic fluid

Answer: B

66. Identify the odd one from the following

A. Labia minora

B. Fimbriae

C. Infundibulum

D. Isthmus

Answer: A

**67.** Which of the following is not associated with womb

A. outer thin membranous perimetrium

B. middle thick layer of smooth muscle

myometrium

C. inner glandular layer endometrium

D. middle thick layer of striped muscle of

myomuscularis







**68.** The part of female external genitalia that includes cushion of fatty tissue covered by skin and pubic hair

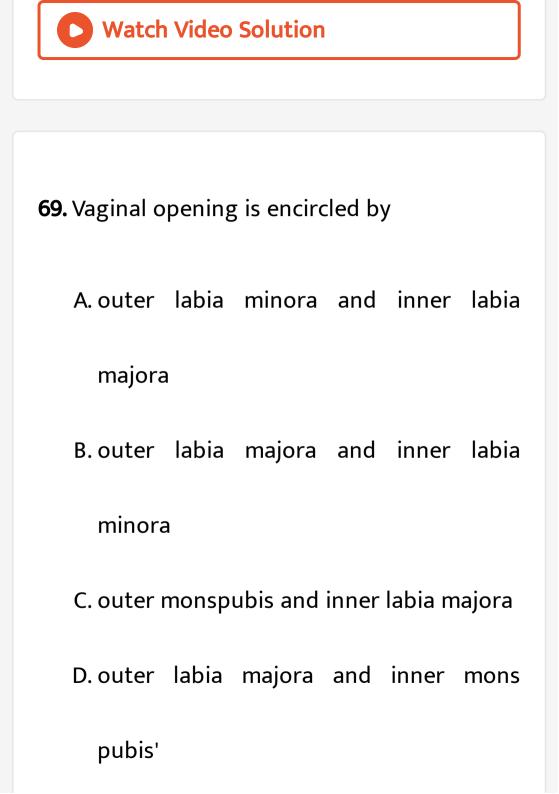
A. Mons pubis

B. Majora pubis

C. Minora pubis

D. Clitoris

Answer: A







**70.** The 'clitoris' is located in urethral opening at the

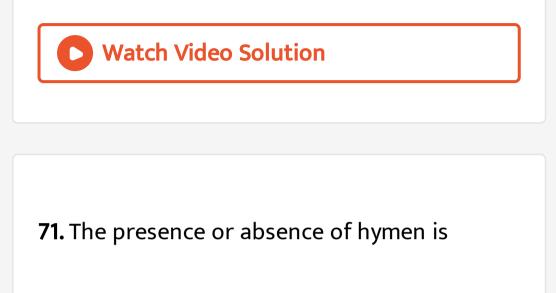
A. lower junction of the two labia minora

B. upper junction of the two labia majora

C. lower junction of the two labia majora

D. upper junction of the two labia minora

#### Answer: D



A. a reliable indicator of virginity

B. a reliable indicator of sexual experience

C. not a reliable indicator of virginity /

sexual experience

D. a reliable indicator of virginity / sexual

experience

## Answer: C

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**72.** Number of mammary lobes present in mammary gland.

A.5 - 10

B.10 - 15

 $\mathsf{C.}\,15-20$ 

 $D.\,150-200$ 

#### Answer: C



73. Milk in mammary glands is stored in

A. reservoir

B. cells of alveoli

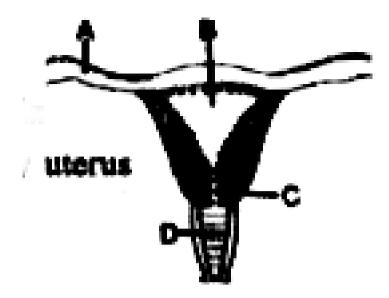
C. mammary sacs

D. cavities of alveoli

## Answer: D

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## **74.** Identify parts A-D in human female reproduction system



A. A = Uterine tube

B = Cavity of cervix

C = Cavity of body uterus

D = Vagina

B. A = Uterine tube

B = Cavity of body of uterus

D = Vagina

C. A = Uterine tube

B = Cavity of cervix

C = Vagina

D = Cavity of body uterus

D. A = Vagina

B = Cavity of cervix

C = Cavity of body uterus

D = Uterine tube

#### Answer: B



## 75. Ovarian follicles are located in which part

of ovary

A. Tunica albuginea

B. Cortex

## C. Medulla

D. Germinal epithelium

## Answer: B

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**76.** The following glands in females are homologous to prostate glands of males

A. Bartholin glands

B. Greater vestibular glands

C. Glands of skene

D. Cowper's glands

## Answer: C



## 77. Which of the following is not a part of

Fallopian tube?

A. Infundibulum

B. Isthmus

C. Cervix

D. Ampulla

## Answer: C



78. Which of the following is not true of the

ovaries?

A. they produce FSH and LH

B. They are homologous to testes

## C. They produce female gametes

D. They produce oestrogens and

progesterone

Answer: A

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**79.** Female reproductive organs and their functions are given below. Identify the blanks

A and B.

Ovaries	Oogenesis
A	Collection of ovum
Uterus	B
Vagina	Sperm receptacle
1) A - Fallopian tube: B - Fertilisation	
2) A - Fimbriae; B - Implantation	
3) A – Clitoris; B – Pregnancy	
4) A - Cervix; B - Copulation	

- A. A Fallopian tube, B Fertilisation
- B. A Fimbriae, B Implantation
- C. A Clitoris, B Pregnancy
- D. A Cervix, B Copulation

Answer: B



## **80.** Structure formed by the joining of many mammary ducts is connected to

- A. Mammary ampulla
- B. Mammary tubules
- C. Lactiferous duct
- D. Nipple

Answer: C





**81.** Mammary tubules of each mammary lobe are joined to form

A. Mammary duct

B. Lactiferous duct

C. Mammary ampulla

D. Lumen of alveoli

Answer: A

**82.** The following are embedded in the sertoli cells after spermatogenesis

A. Primary spermatocytes

B. Secondary spermatocytes

C. Spermatogonia

D. Sperms

Answer: D

**83.** The immature male germ cell undergoes division to produce sperms by the process of spermatogenesis. Choose the correct one with reference to above

A. Spermatogonia have 46 chromosomes

and always undergo meiotic cell division

B. Primary spermatocytes divide by mitotic

cell division

C. Secondary spermatocytes have 23

chromosomes and undergo second

meiotic division

D. Spermatozoa are transformed into

spermatids

Answer: C

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84. The first meiotic division during oogenesis

is completed at the

stage of

- A. Second polar body
- B. Theca layers
- C. Ootid
- D. Zona pellucida

#### **Answer: B**



**85.** The number of ova formed through oogenesis from each ovarian follicle is equal

A. The number of polar bodies

## B. The number of primary oocyte

C. The number of secondary oocytes

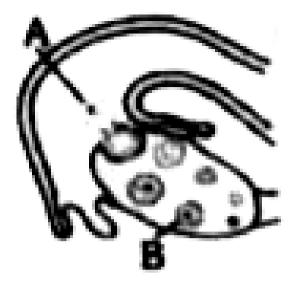
D. Both 2 & 3

#### Answer: C

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86. When did the structure labelled B in the

following diagram start to form



A. At puberty

## B. At the start of the menstrual cycle

C. before birth

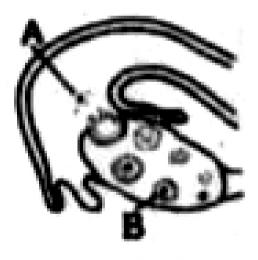
D. In infancy







**87.** Which stage of the munstrual cycle is characterized by the event labelled A in given diagram.



## A. Fertilization

B. Flow

C. Ovulation

D. Corpus luteum formation

Answer: C

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88. Gametogenesis includes

A. production of gametes from secondary

sex organs through meiosis

B. production of gametes from primary sex

organs through mitosis

C. production of gametes from secondary

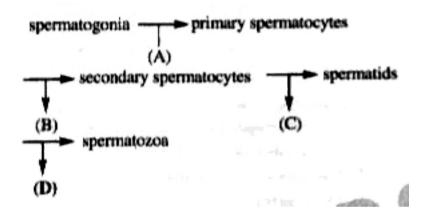
sex organs through mitosis

D. production of gametes from primary sex

organs through reduction division

Answer: D

**89.** Follow this process of development and identify the exact location of reduction in chromosomal number



A. A' only

B. B' only

C. C' only

D. D' only

#### Answer: B



# **90.** Spermiogenesis' is the process of formation of

A. sperms from spermatids

B. spermatids from secondary

spermatocytes

C. secondary spermatocytes from primary

spermatocytes

D. primary spermatocytes from

spematogonia

**Answer: A** 

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91. To produce 200 spematozoa

required

B. only 200 secondary spermatocytes are

required

C. only 50 secondary spermatocytes are

required

D. only 200 spermatids are required

Answer: D

**92.** The following hormone acts on anterior pituitary gland and helpful in release of FSH & LH after the age of puberty

A. ACTH

B. TRH

C. Gn RH

D. Gn TH

Answer: C

93. The hormone that stimulates leydig cells

for the release of 'Androgens'

A. FSH

B. LH

C. GnRH

D. Testosterone

**Answer: B** 

## 94. 'FSH' in males acts on

A. Leydig cells

**B.** Follicles

C. Sertoli cells

D. Spermatozoa

Answer: C

**95.** Nucleus is located in which portion of sperm

A. Head

B. Neck

C. Middle piece

D. Tail

Answer: A

96. Spermiation is the process of the release of

sperms from

A. Seminiferous tubules

B. Vas deferens

C. Epididymis

D. Prostate gland

Answer: A

97. Numerous mitochondria are located in the

sperm in

A. Head

B. Middle piece

C. Neck

D. Tail

Answer: B

**98.** The percentage of sperms that exhibit vigorous motility after ejaculation into female reproductive tract

A. 40

B. 50

C. 60

D. 80

Answer: A

99. The 'semen' of male human who undergone

'vasectomy' devoid of

A. secretions of prostate gland

B. secretions of seminal vesicle

C. sperms

D. seminal plasma

Answer: C

Oogonesis different 100. from spermatogenesis in the following aspect A. a reproduction division B. haploid gametes are formed C. the process initiated during the embryonic stage D. a non reduction division Answer: C

101. Oogonia are

A. Constant in number before the birth and

added after birth

B. Constant in number and never be added

after birth

C. Constant in number before the birth

without division

D. Never be constant in number both

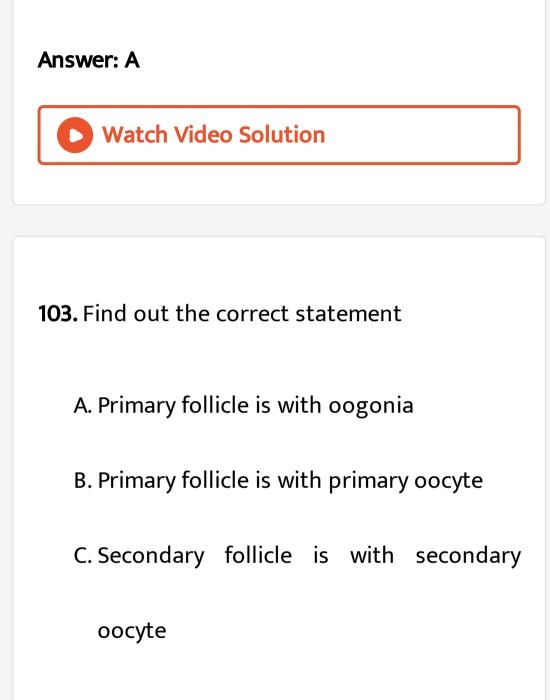
before and after birth

#### Answer: B



**102.** In the following stage oogonia stop their division and enter into prophase - I of meiotic division

- A. Primary oocyte
- B. Secondary oocyte
- C. Tertiary oocyte
- D. Ootid



D. tertiary follicle is with primary oocyte

without antrum

Answer: B

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**104.** Immediately after the development of

antrum the follicle becomes

A. Graafian follicle

B. Primary follicle

C. Tertiary follicle

D. Primordial follicle

#### Answer: C



### 105. The membranous cover of the ovum at

ovulation is

A. Corona radiata

B. Zona radiata

C. Zona pellucida

D. Chorion

#### Answer: A



#### 106. Number of ova formed from each primary

oocyte

A. 4

B. 3

C. 2

D. 1

#### Answer: D



# **107.** The following derivative of primordial germ cell function is uncertain

A. Primary oocyte

B. Secondary oocyte

C. Polar body

D. Ovum

#### Answer: C



#### 108. Match the items of Column-I with those in

Column-II

Column-I	Column-II
A) FSH	1)Prepare endometrium
B) LH	2) Develops female
	secondary sexual characters
C)Progesterone	3) Contraction of uterine wall
D)Estrogen	<ol> <li>Development of corpus luteum</li> </ol>
	5) Maturation of Graafian follicle

$$C. A = 4, B = 3, C = 2, D = 5$$

#### Answer: B

**109.** For maintenance of the endometrium of womb the hormone that is secreted from corpus luteum

A. Estrogen

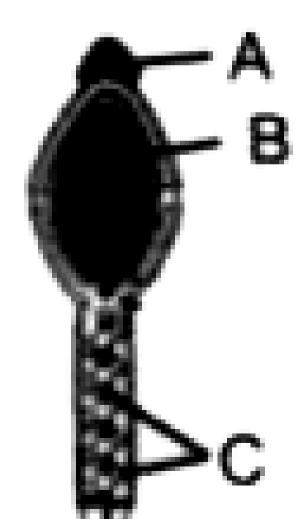
B. Inhibin

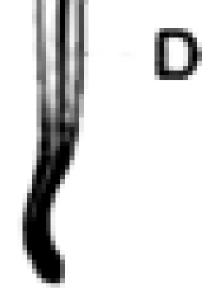
C. GnRH

D. Progesterone

#### Answer: D

# **110.** In the figure of mammalian spermatozoan, identify the different parts marked as A, B, C, D





B = Nucleus

C = Mitochondrial spiral

D = Axial filament

B. A = Axial filament

B = Mitochondrial spiral

C = Acrosome

D = Nucleus

C. A = Nucleus

B = Acrosome

C = Mitochondrial spiral

D = Axial filament

D. A = Acrosome

B = Nucleus

C = Axial filament

D = Mitochondrial spiral

#### Answer: A



#### 111. How many sperms are formed by one

primary spermatocyte ?

A. one

B. three

C. two

D. four

Answer: D



112. How many sperm and ova will be formed

from 50 secondary oocytes and 50 secondary

spermatocytes in human :-

A. 50 sperms and 50 ova

B. 200 sperms and 50 ova

C. 50 sperms and 100 ova

D. 100 sperms and 50 ova

Answer: D

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**113.** Which part of spermatid forms the acrosomes of sperm?

A. Golgi body

#### B. Centriole

C. Nucleus

D. Mitochondria

Answer: A

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114. A mature sperm has

A. a pair of flagella

B.a nucleus, an acrosome, a pair of

centriole

C. a nucleus, an acrosome, and a centriole

D. a nucleus, an acrosome, a pair of

centrioles and a tail

Answer: D

**115.** All of the following has 46 chromosomes

except?

A. Spermatogonia

B. Zygote

C. Secondary oocyte

D. Oogonia

Answer: C

**116.** Androgen binding protein of seroti cells involved in

A. Concentrate testosterone

B. Stimulate the secretion of estrogen

C. Increases the secretion of FSH

D. Both (1) & (3)

Answer: A

**117.** Which piece of a sperm is called power house ?

A. Head

B. Neck

C. Middle piece

D. Tail

Answer: C

118. A noncellular thick glycoprotein rich layer

that is present around oocyte

A. Zona pellucida

B. Corona radiata

C. Discus proligerus

D. Membrana granulosa

Answer: A

**119.** Corpus haemorrhagic



- B. other name for corpus albicans
- C. blood clot in ovarian follicle before ovulation
- D. blood clot in ovarian follicle after

ovulation

Answer: D

**120.** In case of human males inhibin inhibits the secretion of

A. FSH

B. Gn RH

C. LH

D. TSH

Answer: A

121. Sertoli cells are regulated by the pituitary

hormone known as -

A. LH

B. FSH

C. GH

D. prolactin

**Answer: B** 

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

A. corpus luteum will disintegrate

B. progesterone secretion rapidly increases

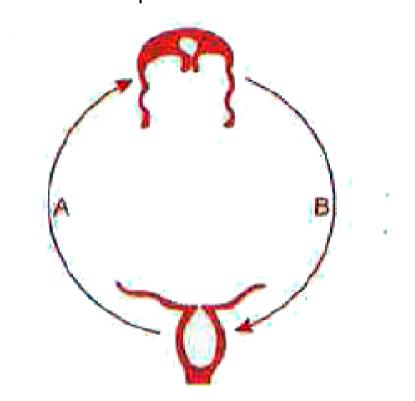
C. estrogen secretion further stops

permenantly

D. primary follicle starts developing

Answer: B

**123.** Study the following figure representing the life cycle of a typical cnidarian and choose the correct option .



A.B - Corona radiata, forms trophoblast		
around morula		
B.C - Antrum, space between the plasma		
membrane of the ovum and zona		
pellucida		
C.A - Zona pellucida, persists till		
implantation		

D. B - Zona pellucida, formed by the oocyte

#### Answer: D

**124.** Which of the following is not a correct difference between male and female humans?

A. Spermatogenesis begins in males at puberty, whereas oogenesis begins in females before they are even born. B. During meiosis, spermatogenesis involves equal cytokinesis whereas oogenesis involves unequal cytokinesis.

C. One primary spermatocyte produces four gametes (sperm) whereas one primary oocyte produces a single ovum. D. Spermatozoon contributes to the mitochondria of the zygote whereas ovum contributes to the centrioles of the zygote.

Answer: D

**125.** Match the following regions of a sperm with the structures and choose the correct option using the codes given below:

Col	umn I	Column II
(a)	Head	(i) Enzymes
(b)	Middle piece	(ii) Sperm motility
(c)	Acrosome	(iii) Energy
(d)	Tail	(iv) Genetic material



126. All of the following are haploid with 23

chromosomes except

- A. First polar body
- B. Second polar body
- C. Primary oocyte
- D. Secondary oocyte

### Answer: C



127. Identify the incorrect one in relation to

human reproduction

A. There are remarkable differences
between the reproductive events in the
male and in the female.
B. The reproductive events occur after

puberty.

C. The formation of sperms continues even

in old men.

D. Insemination is not considered a

reproductive event in humans.

Answer: D



128. Statement-I : During oogenesis the 1st meiotic division occurs in secondary oocyte.Statement-II : Diploid secondary oocyte gives rise to haploid second polar body and ovum.

A. Both I and II statements are correct

B. Both I and II statements are wrong

C. Statement-I correct but II is wrong

D. Statement-I wrong but II is correct





## **129.** Which is innermost layer of a graafian follicle?

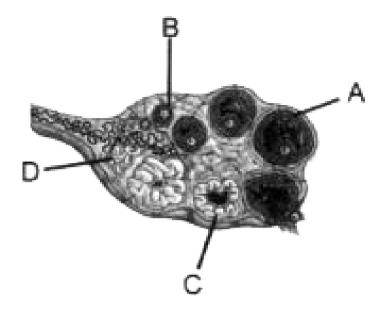
- A. Zona pellucida
- B. Granulosa layer
- C. Corona
- D. Allantois

### Answer: A



**130.** The figure below shows development of follicles (A, B, C, D). Select the option giving correct identification together with its

## funcition?



A.B - Secondary Follicle - secrete

progesterone

B. D - Corpus albicans - Secrete estrogen

C. A - Tertiary follicle - secreate FSH & LH



progesterone

#### Answer: D

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131. How many structures in the list given below are haploid?Spermatid, secondary oocyte, primary spermatocyte, ovum, sperm, oogonia, spermatogonia, polar body

A. Six

B. Four

C. Two

D. Five

Answer: D

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**132.** When released from ovary, human egg contains

- A.1Y chromosome
- B. 2 X chromosome
- C.1X chromosome
- D. XY chromosome

Answer: C



133. Meiosis - I is completed before coming out

of oocyte from ovary and form?

- A. Secondary oocyte
- B. Second polarbody
- C. First polar body
- D. Both 1 & 3

#### Answer: D



**134.** The human male ejaculates about (A) million sperms during a coitus of which for normal fertility at least (B) percent sperms

must have normal shape and size and at least

(C) percent of them must show vigorous motility.

A. 400 - 500, 60, 40

B. 100 - 120, 40, 60

C. 200 - 300, 60, 40

D. 200 - 300, 40, 60

#### Answer: C

## 135. Match the following

List- I	List - II
A) NO <sup>-</sup> <sub>3</sub> ion in drinking water is greater then 50 ppm causes	1) Dissolved oxygen decreases
B) SO <sup>-2</sup> <sub>4</sub> ion is greater then 550ppm causes	2) Minamita disease
C) Mercury poison causing	3)Laxative effect
D)Domestic sewage	4)Blue baby syndrome

A. (A) Fetal life, (B) Birth, (C) Puberty, (D)

Adult reproductive life, (E) Child hood

B. (A) Fetal life , (B) Birth , (C) Child hood ,

(D) Puberty, (E) Adult reproductive life

C. (A) Adult reproductive life , (B) Birth , (C)

Puberty , (D) Child hood , (E) Featal life

D. (A) Brith , (B) Child hood , (C) Fetal life ,

(D) Puberty, (E) Adult reproductive life

Answer: B

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136. During menstrual cycle, both LH and FSH

attain a peak level on

A.  $14^{th} ext{ day}$ 

- B.  $7^{th}$  day
- $\mathsf{C.}\,21^{st}\,\mathsf{day}$
- D.  $28^{th} \, \mathrm{day}$

Answer: A



**137.** The cyclical changes that occur in the uterus during menustral cycle is confined to this layer

A. perimetrium

- B. endometrium
- C. epimetrium
- D. myometrium

#### Answer: B



**138.** Mature Graafian follicle is generaly present in the ovary of a healthy human female around

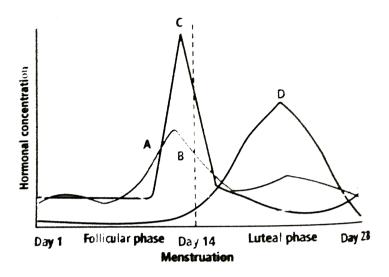
- A. 5 8 day of menstrual cycle
- B. 11 17 day of menstrual cycle
- C. 18 23 day of menstrual cycle
- D. 24 28 day of menstrual cycle

Answer: B

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**139.** Refer to the given graph representing interplay of different hormones (A-D) during menstrual cycle in women and answer the

### question that follow.



Which hormones are excreted in urine after

menopause?

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140. The Three phases that occur successively

during menstral cycle include

A. follicular phase - ovulatory phase - luteal

phase

B. follicular phase - luteal phase - ovulatory

phase

C. follicular phase - menstral phase - luteal

phase

D. ovulatory phase - luteal phase - follicular

phase

Answer: A

**141.** The secretion of gonadotropins increase rapidly during

A. ovulatory phase

B. follicular phase

C. luteal phase

D. menustral phase

Answer: A

142. Menustration is a result of

A. Disintegration of epimetrium

- B. disintegration of endometrium
- C. progression of endometrium
- D. regression of myometrium

Answer: B

**143.** The hormone which is present in the greatest concentration in the blood during ovulation in a female is

A. Estrogen levels raised than progesterone B. Progesterone levels raised than estrogen C. both estrogen & progesterone levels raised

D. both	estrogen	&	progesterone	levels
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decreased

#### Answer: A

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# **144.** Which of the following is the correct sequence ?

A. Estrogen, progesterone, FSH

B. FSH, progesterone, estrogen

C. FSH, estrogen, progesterone

D. Estrogen, FSH, progesterone

Answer: C

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**145.** Identify the correct statement from the following.

A. High levels of estrogen triggers the ovulatory surge.

B. Oogonial cells start to proliferate and give rise to functional ova in regular cycles from puberty onwards. C. Sperms released from seminiferous tubules are highly motile D. Progesterone level is high during the post ovulatory phase of menstrual cycle.

Answer: D

146. Menstruation occurs due to

A. Rising level of progesterone

B. Rising level of LH

C. Rising level of oestrogen

D. Declining level of progesterone

Answer: D

**147.** During menstrual cycle, progesterone attains a peak level around

A. One week prior to menses

B. Two weeks prior to menses

C. One week after menses

D. Nine hours after LH surge

Answer: A

148. The longest phase in menstrual cycle is

A. Proliferative phase

B. Secretory phase

C. Menstrual phase

D. Ovulatory phase

Answer: B

**149.** The cellular layer that disintegrates and regenerates again and again in humans is

A. Endothelium of blood vessels

B. Germinal epithelium of ovary

C. Tunica propria of seminiferous tubules

D. Endometrium of uterus

Answer: D

#### 150. Match the terms column-I with column-II

#### and select the correct option

Column-I	Column-II
A) Capacitation	1) Discharge of blood and other material from the
B) Ovulation	<ol> <li>lining of the uterus.</li> <li>The attachment of the fertilized egg to the endometrium of uterus.</li> </ol>
C) Menstruation	3) The first occurrence of menstruation
D) Menarche	<ol> <li>The change undergone by sperm in the female reproductive tract</li> </ol>
E) Implantation	5) Release of the ripe egg (ovum) from the ovary

A. A = 4, B = 5, C = 1, D = 3, E = 2

B. A = 1, B = 3, C = 2, D = 5, E = 4

C. A = 3, B = 1, C = 5, D = 2, E = 4

D. A = 4, B = 3, C = 5, D = 2, E = 1





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

A. Ovum should reach earlier than sperms

into ampullary - isthamic junction

B. Sperms should reach earlier than ova

into ampullary - isthamic junction

C. Both sperms and ova should transport

simultaneously to the ampullary -

isthamic junction

D. Ovum should reach the vagina when

sperms enter into it

Answer: C

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152. The sex of the child is determined

A. At the time of fertilization on the basis

of kind of sperm

B. After cleavage

C. At the time of birth

D. The kind of ovum that fertilizes with

sperm

Answer: A

**153.** The stage that implants in the uterine endometrium initially

A. Zygote

B. Morula

C. Blastula

D. Blastocyst

Answer: D

154. Morula is a developmental stage

A. Between the zygote and blastocyst

B. Between the blastocyst and gastrula

C. After the implantation

D. Between implantation and parturition

Answer: A



**155.** The second meiotic division of the secondary oocyte is induced by

- A. entry of sperms into vagina
- B. entry of sperm into cytoplasm of

secondary oocyte

C. after the fusion of sperm nucleus with

the nucleus of secondary oocyte

D. with the entry of secondary oocyte into

ampullary Isthmic zone





# **156.** 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

# environment of the male

D. Androgens produced in the uterus

Answer: A

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**157.** The embryonic stage with outer layer trophoblast and inner cell mass attached at one region of the trophoblast is

A. Morula

B. Blastula

C. Blastocyst

D. Gastrula

Answer: C

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158. Choose the incorrect statement from the

following

A. In	bird	ls and	ma	immals	inte	ernal		
fertilisation takes place								
B. Col	ostru	m conta	ains	antibod	ies	and		
nutrients								
C. Polyspermy in mammals is prevented by								
the chemical changes in the egg surface								
D. In	the	human	fem	ale imp	lanta	ation		
осс	urs	almost	sev	en day	/S	after		
fert	ilisati	on						

Answer: C



**159.** Mammalian egg contains negligible yolk so the survival of such embryo is made possible by the fact that they are

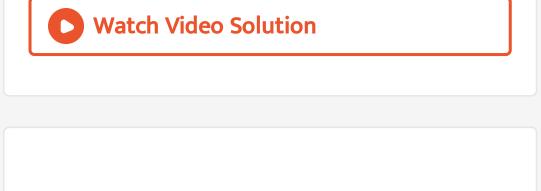
A. nourished through placenta

B. too small and need no much food

C. milk fed

D. none of the above

Answer: A



160. The acrosome enables the sperm to

A. find ovum for fertilisation

B. penetrate egg membranes

C. help in swimming

D. produce energy for activity

Answer: B

**161.** Extrusion of second polar body from the human ovum occurs.

A. without any relation to the sperm entry

B. after completion of fertilisation

C. before entry of sperms

D. after the entry of sperm and before

completion of fertlisation

## Answer: D

**162.** The fertilisation cone, which pulls the sperms into the egg, is formed from

A. acrosome of the sperm

B. acrosomal process of the sperm

C. vitelline layer of the sperm

D. plasma membrane of the egg

Answer: D

**163.** First step in activation of ovum during process of fertilisation is

A. formation of fertilisation membrane

B. Fertilizin antifertilizin reaction

C. Penetration of sperm in to primary

oocyte

D. Cortical and zona reaction

Answer: B



164. Polyspermy is normally prevented by

A. Cortical reqactions

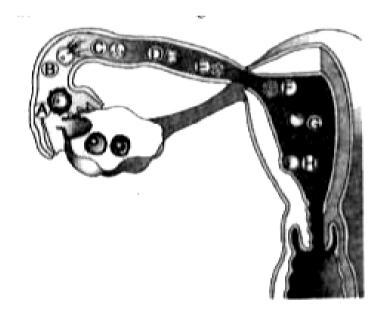
**B.** Zona reactions

C. inhibin hormone

D. both (1) & (2)

Answer: D

**165.** The following diagram shows transport of ovum, fertilisation and passage of growing embryo. Choose the option that correctly identifies one of the stages and its characteristic.



A.E: Morula - A hollow ball of 8 to 16

blastomeres

B.G: Gastrula - Has three primary germ

layers

C. H: Blastocyst - Becomes embedded in the

endometrium

D. B: Fertilisation - Several sperms

penetrate the ovum

Answer: C

**166.** The outermost layer of blastomeres in the

blastocyst is termed

A. Epiblast

B. Embryoblast

C. Hypoblast

D. Trophoblast

Answer: D

### 167. Match the terms column-I with column-II

## and select the correct option

Column-I		Column-II
A) Trophoblast		Embeddingof blasto- cyst in the endometrium
B) Cleavage	2)	Group of cells that would differentiate as embryo
C) Inner cell mass	3)	Outer layer of blasto- cyst attached to the endometrium
D) Implantation	4)	Mitotic division of zygote

A. A = 2, B = 1, C = 3, D = 4

C. A = 3, B = 1, C = 2, D = 4

D. A = 2, B = 4, C = 3, D = 1

## Answer: B



**168.** Which of the following is true about fertilisation in human beings ?

A. Fertilization normally occurs in the

ampullary region of the Fallopian tube.

B. Fertilization occurs about 14 days after

ovulation.

C. Sperm penetrates oocyte only after the

oocyte completes second meiotic division.

D. Fertilization occurs only if coitus takes

place on the day of ovulation.

Answer: A

**169.** Penetration of sperm into the oocyte is facilitated by

A. Zona reaction

**B.** Acrosomal reaction

C. Cortical reaction

D. All the above

**Answer: B** 

170. How many of following event occurs in

fallopian tube ?

- A) Fertilisation
- B) Cleavage
- C) Morulation
- D) Organogenesis
  - A. One
  - B. Two
  - C. Three
  - D. Four





# **171.** During Implantation, the blastocyst is embedded in which layer of the uterus?

A. Perimetrium

B. Myometrium

C. Endometrium

D. Serosa

## Answer: C



# **172.** The part of decidua where placenta is formed is called

A. Decidua parietalis

B. Decidua basalis

C. Decidua capsularis

D. Deidua functionalis





# 173. The figure below show four stage (a, b, c,d) of human development. Correctly identify

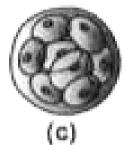
# these images.















174. Capacitaion refers to changes in the

A. Ovum after fertilization

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

Answer: D

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# 175. Most of the organ systems are formed

A. At the beginning of first trimester

B. By the end of first trimester

C. At the end of third trimester only

D. Only at the end of second trimester

Answer: B

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**176.** The placenta is formed from The\_\_\_\_\_of

the embryo and the\_\_\_\_\_of mother.

A. only chorionic villi

B. only maternal tissue

C. both chorionic villi of trophoblast and

maternal tissue

D. uterine tissue with maternal blood

Answer: C

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# 177. hCG, hPL and relaxin are produced in

women

A. ovary only

B. uterus only

C. Foetus only

D. placenta

Answer: D

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178. In human development the embryos heart

is formed

A. after one month

B. after one week

C. after two months

D. after six months

Answer: A

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**179.** The first sign of growing foetus may be noticed by

A. breathing

B. heart sound

C. limbs movement

D. head

Answer: B

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

A.  $2^{nd}$  month

- B.  $3^{rd}$  month
- C.  $4^{th}$  month
- D.  $5^{th}$  month

## Answer: D



**181.** By the end of \_\_\_\_\_, the body is covered with fine hair , eye-lids separate and eyelashes are formed. Choose the option correctly.

- 1) First trimester
- 2) Second trimester
- 3) One month
- 4) Two month
  - A. 24 weeks in second trimester
  - B. 24 weeks in third trimester
  - C. 36 weeks in second trimester
  - D. 36 weeks in third trimester

Answer: A



**182.** The correct gestation period in days of cats, dogs, elephants and humans.

A. cats - 45 - 50, dogs - 50 - 60, elephants -

540, humans - 260 - 270

B. cats - 58 - 65, dogs - 45 -50, elephants -

540 - 580, humans - 240 - 260

C. cats 58 - 65, dogs - 60 - 65, elephants -

607 - 641, humans - 270 - 290

D. cats - 58 - 65, dogs - 30 - 40, elephants -

540 - 600 humans - 270 - 290

### Answer: C

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## 183. Match the items of Column-I with those in

## Column-II

Col	umn	-1

- A)Chorion
- B)Allantois
- C) Yolk sac
- D)Amnion

#### Column-II

- 1) Nourishment
- 2) Protection
- 3) RBC production
- 4) From hindgut

B. 
$$A = 1, B = 4, C = 3, D = 2$$

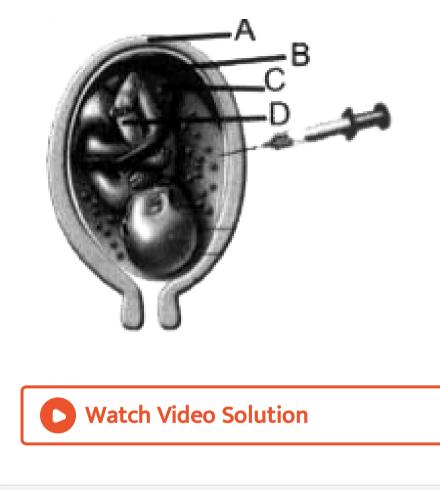
D. A = 1, B = 3, C = 2, D = 4

### **Answer: B**

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**184.** The diagram shows amniocentesis and some parts have been indicated by alphabets.

# Choose the correct match.



185. During pregnancy, the production of ova

in ovary is prevented by

# A. estrogen

B. relaxin

C. progesterone

D. prolactin

Answer: C

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186. The gestation period of elephant is about

A. 11 months

B. 12 months

C. 15 months

D. 22 months

Answer: D

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187. Which of the following hormones is not

secreted by human placenta?

A. hCG

# **B. Estrogens**

C. Progesterone

D. LH

Answer: D

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188. The inner most foetal membrane around

the embryo

A. Amnion

**B. Allontois** 

C. Chorion

D. Yolksac

Answer: A

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189. Which of the following hormones is not a

secretory product of human placenta?

A. human chorionic gonadotropin

B. prolactin

C. estrogen

D. progesterone

Answer: B

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**190.** Which of the following hormones are produced only during pregnancy?

A. Prolactin and human placental lactogen

- B. Relaxin and inhibin
- C. Oxytocin and progesterone
- D. Human chorionic gonadotropin and

human placental lactogen

Answer: D

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191. Choose the correct sequence of events

that occur in human reproduction

A. Fertilisation, blastulation, gastrulation,

implantation, neurulation

B. Insemination, spermiation, gastrulation,

neurulation, implantation, parturition

C. Spermiation, insemination, fertilisation,

blastulation, implantation, parturition

D. Gametogenesis, fertilisation, lactation,

implantation, parturition

## Answer: C

**192.** Statement-I : During embryonic development of humans, the inner cell mass differentiates into ectoderm, endoderm and mesoderm and these layers give rise to all tissues and organs in adults. Statement-II The inner cell mass contains certain cells called stem cells, which have the potency to give rise to all the tissues and organs.

A. Both I and II statements are correct

B. Both I and II statements are wrong

## C. Statement-I correct but II is wrong

D. Statement-I wrong but II is correct

Answer: A

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

A. Facilitates removal of  $CO_2$  and waste

material from embryo

B. Secrete oxytocin during parturition

C. Secrete estrogen & progesterone

D. Faciliates supply of oxygen and nutrients

to embryo

Answer: B

## 194. Match the items of Column-I with those in

## Column-II

Column-l A)Hyaturonidase B)Corpus luteum

C)Gastrulation D)Capacitation E)Colostrum

#### Column-II

- A)Hyaluronidase 1) Acrosomal reaction
  - Morphogenic movements
  - progesterone
  - 4) Mammary gland
  - 5) Sperm activation

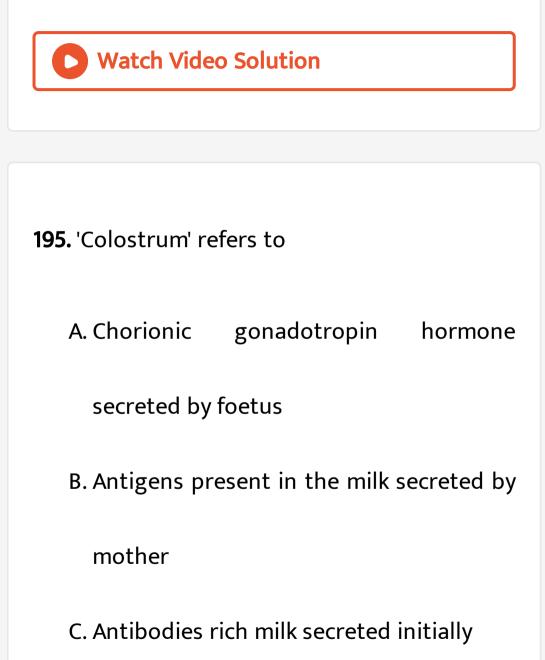
A. A = 5, B = 2, C = 4, D = 1, E = 3

B. A = 1, B = 3, C = 2, D = 5, E = 4

C. A = 1, B = 2, C = 3, D = 4, E = 5

D. A = 4, B = 2, C = 5, D = 3, E = 1





D. A protein required for the growth of

foetus

Answer: C



196. Parturition is the process of

A. expulsion of urine

B. expulsion of intestine

C. child birth

D. participation in child growth

Answer: C

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**197.** Paturition is induced by a complex

A. neuro-endocrine mechanism

B. physico-chemical phenomenon

C. neuro-physical mechanism

D. only physical phenomenon





# **198.** Foetal ejection reflex is helpful in

A. micturition

- B. parturition
- C. insemination
- D. lactation

Answer: B



**199.** The hormone through autocatalytic secretion useful in stronger uterine muscle contractions.

A. vasopressin

B. estrogen

C. oxytocin

D. progesteron

Answer: C



# 200. The hormone that generally adminstered

by doctors to induce delivery

A. estrogen

B. progesteron

C. vasopressin

D. oxytocin

Answer: D





**201.** In pregnant woman having prolonged labour pains, if the childbirth has to be hastened, it is advisable to administer a hormone that can

A. activate the smooth muscles

B. increase the metabolic rate

C. release glucose into the blood

D. stimulate the ovary





# **202.** Foetal ejection reflex in humans is induced by signals from

A. Wastes accumulating in allantois

- B. Colostrum secreted by mammary glands
- C. Pressure exerted by amniotic fluid
- D. Fully developed foetus and placenta

## Answer: D



# 203. Match the items of Column-1 with those

## in Column-II

#### Column-I

- A)oxytocin B)Prolactin
- C)Luteinising hormone D)Progesterone

#### Column-II

- p)Stimulate ovulation
- q) Implantation and maintenance of pregnancy
- r) Lactation after child birth
- s) Uterine contraction during labour
- Reabsorption of water by nephrons

#### Answer: C

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204. The layer of uterus, which exhibits strong

contraction during the delivery of the baby is

A. mesometrium

B. epimetrium

C. myometrium

D. endometrium

Answer: C

Watch Video Solution

**Exercise li** 

1. Release of semen into the prostatic urethra

is called

A. Ejaculation

**B.** Erection

C. Emission

D. Insemination

Answer: C

2. Glans penis is covered by a loose fold of skin

is called.

A. Corpus spongiosum

B. Corpus cavernosum

C. Ejaculatory ducts

D. 1 and 2

Answer: A

3. Nebenkern sheath is restricted to

A. Tail of sperm

B. Acrosome of sperm

C. Head of sperm

D. energy - chamber of sperm

Answer: D

- **4.** Study the following.
- a) Inhibits release of LH and GnRH
- b) Prepares mammary glands to secrete milk.
- c) Prepares endometrium for implantation
- d) Inhibits ovulation
- e) Inhibits contraction of uterine muscles.

The above are related to

- A. Hormone of female sexual behaviour
- B. Hormone of emergency
- C. Hormone of gestation

D. Hormone of survival

# Answer: C

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**5.** During fertilization, cortical and zona reactions are caused due to

A. 
$$Ca^{+\,+}$$
 wave in sperm

B. Enzymes of acrosome

C. 
$$Ca^{+\,+}$$
 wave in oocyte

D. Capacitation

## Answer: C

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6. Decidua capsularis lies between

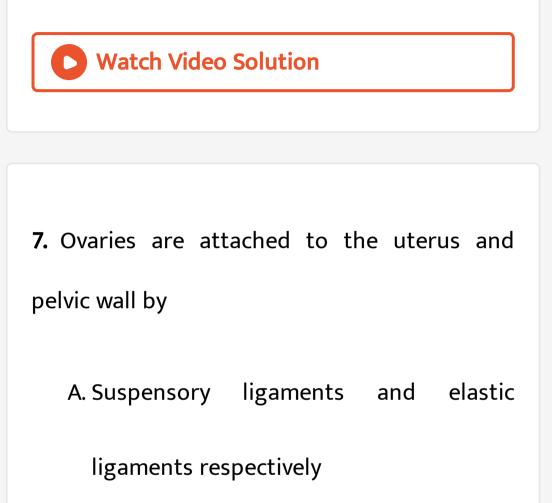
A. Myometrium and endometrium

B. Uterine cavity and embryo

C. Embryo and myometrium

D. Uterine cavity and myometrium

## Answer: B



B. Suspensory ligaments and ovarian

ligaments respectively

ligaments respectively

D. Only suspensory ligaments

Answer: C

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8. hCG is similar in its actions to

A. FSH

**B.** Progesteron

C. LH

D. Estrogen

## Answer: C



# 9. Estrogen - to - progesterone ratio towards

the end of pregnancy

A. increases

B. decreases

C. remains same

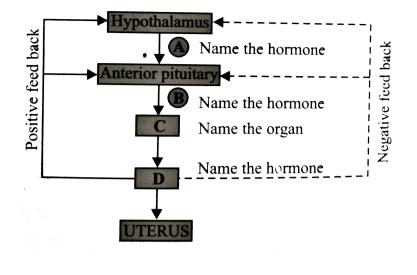
D. 1 or 2

## Answer: A



**10.** Given below is an incomplete flow chart showing influence of hormones on gametogensis in females. Study it carefully

and identify A, B, C and D.



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11. Ectoderm forms

A. Bones and muscles

B. Lining of gut and respiratory organs

C. Enamel of teeth and cornea of eye

D. Gonads and blood vessels

Answer: C



12. Which are 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

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13. Tunica albunginea is related to

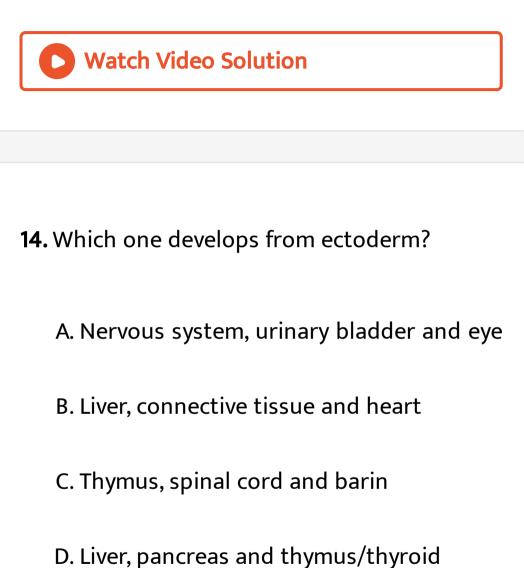
A. Penis

B. Ovary

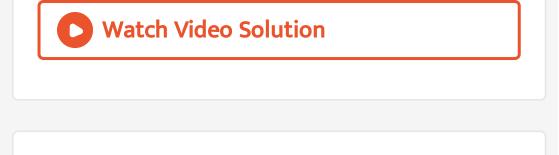
C. Testes

D. all





Answer: D



- **15.** 'Azoospermia' the term related to
  - A. No sperms in the semen
  - B. No motile sperms in the semen
  - C. Shape and size of sperms differ
  - D. More than 40 percent are motile

Answer: A



16. Testes are abdominal in

A. elephants

B. goat

C. ape

D. rabbit

Answer: D

## 17. Match the items of Column-I with those in

## Column-II

### Column-I

a) Parathyroid glands

b) Adrenal cortex

c) Enamel

d) Middle ear

Column-II i) Ectoderm ii) Mesoderm iii) Endoderm

A.	$\mathbf{a}$	b	С	d
	iii	ii	i	ii
Β.	a	b i	с	d
	a iii	i	ii	i
C.	a	b	с	d
	ii	b i	iii	i
D.	a	b	с	d
	ii	iii	i	ii

#### Answer: A



- **18.** Type of cleavage in an eggs is determined by
  - A. shape and size of the sperm
  - B. size and location of the nucleus
  - C. number of egg membranes
  - D. amount and distribution of yolk

#### Answer: D





**19.** Which of the following characteristics does

not belong to cleavage

A. Decrease in size of blastomeres

B. Rapid mitotic cell divisions

C. Interphase of very short duration

D. Differentiation of blastomeres

Answer: D

**20.** Peritoneum and thyroid gland originate respectively from which germ layers?

A. Mesoderm and endoderm

B. Endoderm and mesoderm

C. Ectoderm and endoderm

D. Mesoderm and ectoderm

Answer: A

**21.** Which substance of the egg helps in attracting and holding the sperm ?

A. Antiagglutinin

B. Antifertilizin

C. Agglutinin

D. Fertilizin

Answer: D

22. Lens of eye develops from

A. Endoderm

B. Ectoderm and mesoderm

C. Ectoderm

D. Mesoderm

Answer: C

**23.** During the course of development, cells in various regions of embryo became variable in morphology and eventually perform diverse functions. This process is known as

A. Rearrangement

**B. Differentiation** 

C. Metamorphosis

D. Organisation

Answer: B





**24.** Foetal membrane that provides the first blood corpuscle for circulation in embryo is

A. Trophoblasti

B. Yolk sac

C. Amnion

D. Chorion

Answer: B

25. Foetus is embryo

A. 2 months

B.4 months

C. 6 months

D.7 months

Answer: A

26. Reproductive system in humans is derived

from

A. Ectoderm

B. Endoderm

C. Mesoderm

D. Ecto-endo-mesoderm

## Answer: C

## 27. Increase in BMR is due to

A. estrogen

B. progesterone

C. testosterone

D. Inhibin

Answer: C



28. Estrogen is responsible for

A. increasing BMR

B. musculanisation

C. broading of pelvis

D. low pitch voice

Answer: C

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**29.** High concentration of estrogen inhibits secretion of

A. FSH

B. Gn RH

C. Prolactin

D. Both 1 & 2

Answer: D

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**30.** Withdrawal of which of the following hormones is the immediate cause of menstruation?

A. Progesterone

B. estrogen

C. FSH

D. FSH-RH

Answer: A

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31. 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 and vegetal pole

D. at the vegetal pole

Answer: B

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**32.** What is true ?

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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**33.** Blastopore is the pore of :-

A. archenteron

B. blastocoel

## C. coelom

D. alimentary canal

## Answer: A



## 34. Which of the following hormones when

injected intravenously can induce abortion?

A. Progesterone

B. Oxytocin

C. Prolactin

D. Oestrogen

#### Answer: B



35. Erection of penis occurs due to :-

A. Vasodilation caused by sympathetic

stimulation

B. Vasodilation cause	ed by parasympathetic
stimulation	
C. Vasoconstriction c	aused by sympathetic
stimulation	
D. Vasoconstriction	caused by
parasympathetic st	timulation
Answer: B	
<b>Watch Video Solut</b>	ion

**36.** Parturition is induced by a complex Neuro end ocrine mechanism'. Justify.

A. Cortisol, estrogens and oxytocin

B. Oxytocin, relaxin and aldosterone

C. Relaxin, hCG and GnRH

D. Progestogen, hPL and hCG

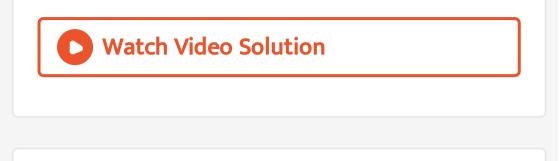
Answer: A

**37.** The immune system does not normally attack on immature germ cells because A. They are recognized as "self" structures B. They do not have any antigens and their cell membrane C. These cells are protected by the blood testis barrier D. The acrosome covers many antigens that

into ovum would be recognized as

foreign

## Answer: C



**38.** Which statement is wrong about testosterone hormone ?

A. It gives (-) ve feed back to hypothalamus

and anterior pituitary in its excess

concentration to suppress GnRH, FSH &

LH release.

B. It stimulates CNS

C. It is responsible for production of sperm

and secondary sex characters of male

D. It is not responsible for controlling the

emotional responses

Answer: D

**39.** A five week old embryo has Wolffian and Mullerian duct and after completing seven weeks one of two ducts is disappeared due to secretion of hormone 'A'. Identify the hormone 'A' and what will be the sex of embryo in future?

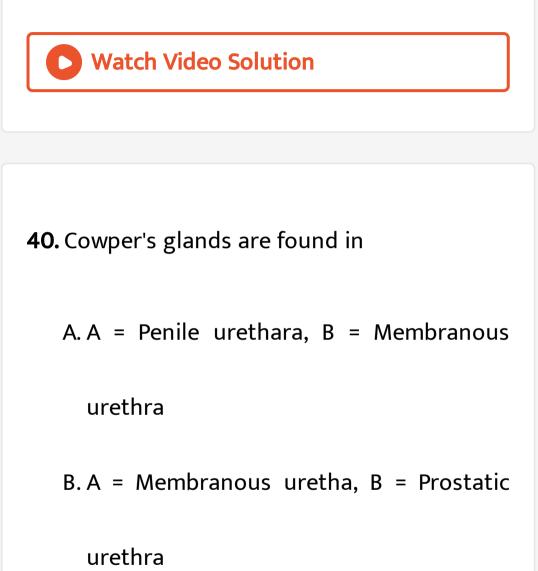
A. Testosterone, male

B. AMH, male

C. Estrogen, female

D. Inhibin, female

### Answer: B



C. A = Prostatic urethra, B = Penile urethra

D.A = Membranous urethra, B = Penile

urethra

Answer: D

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## 41. Which one of the following structures of

sperm is mismatched ?

1) Acrosome	- Contain spermlysins that Help in fertilization
2) Nucleus	<ul> <li>Contain haploid genome</li> </ul>
3) Proximal centriole	<ul> <li>Forms spindles in zygote</li> </ul>
4) Tail	<ul> <li>Contain numerous, Mitochondria, which produce energy for movement of tail</li> </ul>

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42. A female undergo hysterectomy, which one

of the following event will not occur ?

A. Formation of Graafian follicle

- B. Ovulation
- C. Menstruation

D. Completion of meiosis - I and formation

of secondary oocyte

Answer: C

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43. Which of the following is responsible for

division of fertilized egg :-

- A. Centriole of ovum
- B. Proximal centriole of sperm
- C. Distal centriole of sperm
- D. Mitochondria of sperm

Answer: B

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**44.** 'Inguinal hernia' means

A. testis attached to intestine

B. intestine descend in to scrotum

## C. accumulation of water in scrotum

D. Infection to testis

Answer: B

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45. Gustation period of horse is

A. 145-155 days

B. 58-65 days

C. 275-290 days

D. 330-340 days

#### Answer: D

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1. Which of the following depicts the correct

pathway of transport of sperms?

A. Rete testis $ ightarrow$ Efferent ductules $ ightarrow$	
Epididymis `to Vas deferens	
B. Rete testis $\rightarrow$ Epididymis $\rightarrow$ Efferent	
ductules $\rightarrow$ Vas deferens	
C. Rete testis $ ightarrow$ Vas deferens $ ightarrow$	
Efferent ductules $\rightarrow$ Epididymis	
D. Efferent ductules $ ightarrow$ Rete testis $ ightarrow$	
Vas deferens $\rightarrow$ Epididymis	

### Answer: A

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

A. Ovary

B. Placenta

C. Fallopian tube

D. Pituitary

Answer: B

**3.** Match Column-I with Column-II and select the correct option using the codes given

# below.

#### Column-I

- a) Mons pubis
- b) Antrum
- c) Trophectoderm
- d) Nebenkern

#### Column-II

- i) Embryo formation
- ii) Sperm
- iii) Female external genitalia
- iv) Graafian follicle

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4. Fertilization in humans is practically feasible

only if

A. the ovum and sperms are transported simultaneously to ampullary - isthmic junction of the fallopian tube. B. the ovum and sperms are transported simultaneously to ampullary - isthmic junction of the cervix C. the sperms are transported into cervix within 48 hrs of release of ovum in uterus.

D. the sperms are transported into vagina

just after the release of ovum in

fallopian tube

Answer: A

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## 5. Changes in GnRH pulse frequency in females

is controlled by circulating levels of

A. estrogen and inhibin

B. progesterone only

C. progesterone and inhibin

D. estrogen and progesterone

Answer: D

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6. Identify the correct statement on 'inhibin'

A. Is produced by granulose cells in ovary

and inhibits the secretion of FSH

B. Is produced by granulose cells in ovary

and inhibits the secretion of LH

C. Is produced by nurse cells in testes and

inhibits the secretion of LH

D. Inhibits the secretion of LH, FSH and

Prolactin.

Answer: A

7. Which of the following layers in an antral

follicle is acellular?

A. Theca interna

B. Stroma

C. Zona pellucida

D. Granulosa

Answer: C

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

A. Full development of graffian follicle

B. Release of secondary oocyte

C. LH surge

D. Decrease in estradiol

Answer: D

9. Capacitaion refers to changes in the

A. Ovum before fertilization

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

Answer: D

**10.** Which of these is not an important component of initiation of parturition in humans?

- A. Synthesis of prostaglandins
- B. Release of oxytocin
- C. Release of prolactin
- D. Increase in estrogen and progesterone

ratio

Answer: C





# **11.** Hysterectomy is surgical removal of

A. Prostate gland

B. Vas-deferens

C. Mammary gland

D. Uterus

Answer: D

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

A. Implantation of embryo at site otherthan uterusB. Implantation of defectiv embryo in theuterus

C. Pregnancies terminated due to

hormonal imbalance

D. Pregnancies with genetic abnormality

Answer: A



**13.** 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



# 14. The main function of mammalian corpus

luteum is to produce

A. Estrogen only

B. Progesterone

C. Human chrionic gonadoptropin

D. Relaxin only

Answer: B





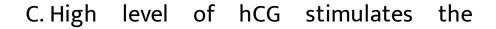
**15.** Select the correct option describing gonadotropin activity in a normal pregnant female

A. High level of FSH and LH stimulates the

thickening of endometrium

B. High level of FSH and LH facilities

implantation of the embryo



synthesis of estrogen and progesterone

D. High level of hCG stimulates the

thickening of endometrium

Answer: C

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16. What is the correct sequence of sperm

formation?

A. Spermatogonia,

spermatozoa,

spermatocytes, spermatids

B. Spermatognia, spermatocytes,

spermatids, spermatozoa

C. Spermatids, spermatocytes,

spermatogonia, spermatozoa

D. Spermatogonia, spermatocytes,

spermatozoa, spermatids

Answer: B

**17.** Which one of the following is not the function of plancenta? It

A. Facilitates removal of carbon dioxide and waste material from embryo B. Secretes oxytocin during parturition C. Facilitates supply of oxygen and nutrients to embryo D. Secretes oestrogen





### 18. Menstrual flow occurs due to lack of

A. Oxytocin

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



**19.** In our socity women are blamed for producing female children . Choose the correct answer for the sex-determination in humans

A. Due to some defect like aspermia in man

B. Due to the genetic make up of the

particular sperm which fertilizes th egg

C. Due to the genetic make up of the egg

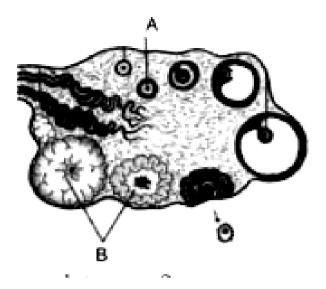
D. Due to some defect in the women

#### Answer: B

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**20.** The figure shows a section of human ovary. Select the option which gives the correct identification of either A or B with

## function/characteristic.



A.B - Corpus luteum - Secretes

progesterone

B.A - Tertiary follicle - Forms Graafian follicle

C. B - Corpus luteum - Secretes estrogen

D. A - Primary oocyte - It is in the prophase -

i of the meiotic division

Answer: A

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**21.** The foetal ejection reflex in humans

triggers the release of

A. Oxytocin from foetal pituitary

B. Human chorionic gonadotropin (hCG)

from placenta

C. Human placental lactogen (hPL) from

placenta

D. Oxytocin from maternal pituitary

Answer: D

**22.** Which one of the following statements is false in respect of viability of mammalian sperm?

- A. Sperm is visible for only up to 24 hours.
- B. Survival of sperm depends on the pH of

the medium and is more

active in alkaline medium

C. Viability of sperm is determined by its

motility

### D. Sperms must be concentrated in a thick

suspension

Answer: A

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23. Signals for parturition originate from

A. Both placenta as well fully developed

foetus

B. Oxytocin released from maternal

pituitary

C. Placenta only

D. Fully developed foetus only

Answer: A

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24. In a normal pregnant woman, the amount

of total gonadotropin activity was assessed.

The result expected was

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

Answer: D



# 25. The Leydig cells as found in the human

body are the secretory source of

A. Progesterone

**B.** Intestinal mucus

C. Glucagon

D. Androgens

Answer: D





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

A. Luteal phase and lasts for about 6 days

B. Follicular phase and lasts for about 6

days

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

#### Answer: C



**27.** If for some reason, the vesa effeerentia in the human reproductive system get blocked, the gametes will not transported from

A. Testes to epididymis

B. Epididymis to vas deferens

C. Ovary to uterus

D. Vagina to uterus

#### Answer: A



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

A. Maintaining the scrotal temperature

lower than the internal body

temperature

B. Escaping any possible compression by

the visceral organs

C. Providing more space for the growth of

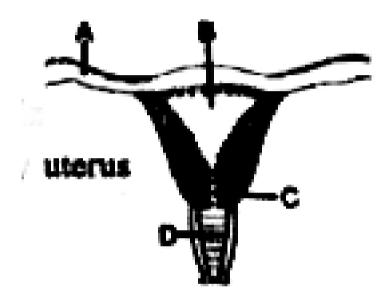
epididymis

D. Providing a secondary sexual feature for

exhibiting the male sex

Answer: A

# **29.** Identify parts A-D in human female reproduction system



# A. (II) endometrium, (III) infundibulum, (IV)

#### fimbriae

B. (III) fimbriae, (IV) infundibulum, (V) cervix

C. (IV) ovidual funnel, (V) uterus, (VI) cervix

D. (I) perimetrium, (II) myometrium, (III)

Fallopian tube

Answer: B

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

A. Secretions of acrosome helps one sperm enter cytoplasm of ovum through zona pellucida B. all sperms except the one nearest to the ovum lose their tails C. cells of corona radiata trap all the sperms except one D. only two sperms nearest the ovum penetrate zona pellucida

Answer: A



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

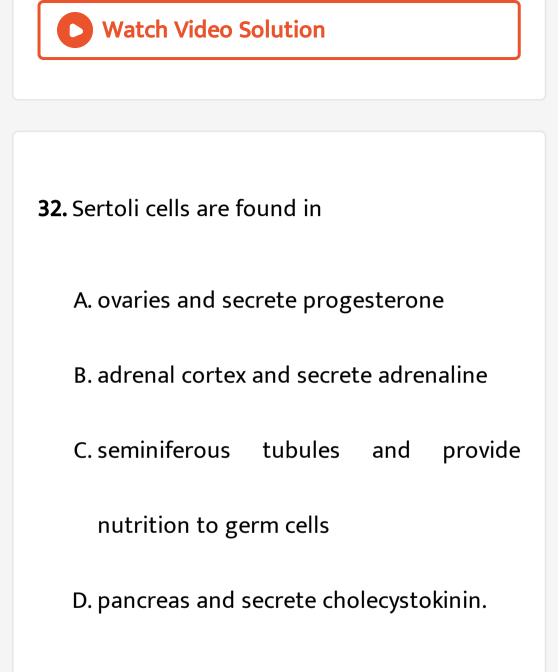
A. 14 th day

B. 20 th day

C. 5 th day

D. 11 th day





#### Answer: C





# **33.** Vasa efferentia are the ductules leading from

A. testicular lobules to rete testis

B. rete testis to vas deferens

C. vas deferens to epididymis

D. epididymis to urethra

Answer: B

34. Seminal plasma in human males is rich in -

A. fructose and calcium

B. glucose and calcium

C. DNA and testosterone

D. ribose and potassium

Answer: A

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

A. fourth month

B. fifth month

C. sixth month

D. third month

Answer: B

**36.** The second maturation division of the mammalian ovum occurs

A. Shortly after ovulation before the ovum

makes entry into the Fallopian tube.

B. Until after the ovum has been

penetrated by a sperm

C. Until the nucleus of the sperm has fused

with that of the ovum

D. In the Graafian follicle following the first

maturation division

#### Answer: B



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

A. acrosome has a penetrating the egg, resulting in fertilisation

B. the sperm lysins in the acrosome

dissolve the egg envelope facilitating

fertilisation

C. acrosome serves as a sensory structure

leading the sperm towards the ovum

D. acrosome serves no particular function

Answer: B

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**38.** Which one of the following statements

about morula in humans is correct?

A. it has almost equal quantity of cytoplasm as an uncleaved zygote but much more DNA B. it has far less cytoplasm as well as less DNA than in an uncleaved zygote C. it has more or less equal quantity of cytoplasm and DNA as in uncleaved zygote D. it has more cytoplasm and more DNA than an uncleaved zygote





# **39.** The part of Fallopian tube closest to the ovary is

A. isthmus

B. infundibulum

C. cervix

D. ampulla

### Answer: B



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

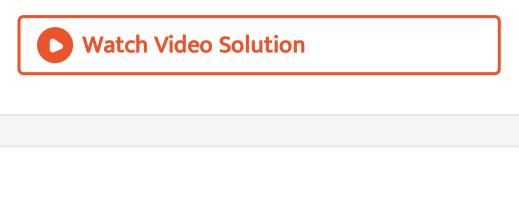
A. estrogen from placenta

B. oxytocin from maternal pituitary

C. oxytocin from foetal pituitary

D. relaxin from placenta

#### Answer: B



**41.** In human female the blastocyst:-

- A. forms placenta even before 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

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42. Secretions from which one of the following

are rich in fructose,calcium and some enzymes?

A. male accessory glands

B. liver

C. pancreas

D. salivary glands

Answer: A

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43. Seminal plasma in humans 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

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**44.** Which one of the following is the correct matching of the events occurring during mentrual cycle?

A. proliferative phase : Rapid regeneration

of myometrium and maturation of

Graafian follicle

B. secretory phase : Development of corpus

luteum and increased secretion of

progesterone



myometrium and ovum not fertilised

D. ovulation : LH and FSH attain peak level

and sharp fall in the secretion of

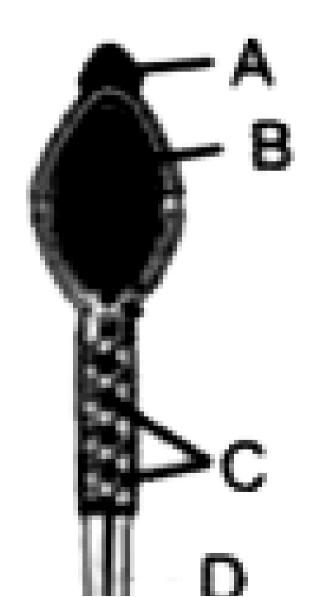
progresterone

Answer: B

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45. In the figure of mammalian spermatozoan,

identify the different parts marked as A, B, C, D





A. A-vas deferens, B-seminal vesicle, Cprostate, D-bulbourethral gland. B. A-vas deferens, B-seminal vesicle, Cbulbourethral gland, D-prostate. C. A-ureter, B-seminal vesicle, C-prostate, Dbulbourethral gland.

D. A-ureter, B-prostate, C-seminal vesicle, D-

bulbourethral gland.

Answer: A

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**46.** 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



47. The correct sequence of spermatogenetic

stages leading to the formation of sperms in a

mature human testis is

A. spermatogonia - spermatocyte	-
spermatid - sperms	
B. spermatid - spermatocyte	-
spermatogonia - sperms	
C. spermatogonia - spermatid	-
spermatocyte - sperms	
D. spermatocyte - spermatogonia	-
spermatid - sperms	

#### Answer: A

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**48.** 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 hypertrophicalendometrial liningB. maintenance of the high concentrationof sexhormones in the blood stream

C. retention of well- developed corpus

luteum

D. fertilisation of the ovum

Answer: B

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

A. pattern of cleavage

B. number of blastomeres produced

C. fertilization

D. formation of zygote

Answer: A

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**50.** In humans, at the end of the first meiotic division, the male germ cells defferentiate into the

A. spermatids

- B. spermatogonia
- C. primary spermatocytes
- D. secondary spermatocytes

Answer: D

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51. In human adult females oxytocin

A. 1)stimulates pituitary to secrete

vasopressin

B. 2) causes strong uterine contractions

during parturition

C. 3) is secreted by anterior pituitary

D. 4) stimulates growth of mammary glands

Answer: B

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

A. at menopause in the female, there is especially abrupt increase in gonadotropic hormones B. the beginning of the cycle of menstruation is called menarche C. during normal menstruation about 40 ml blood is lost

D. the menstrual fluid can easily clot.

## Answer: D

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**53.** Which extraembryonic membranes in human prevents dissicaation of embryo inside uterus?

A. yolk sac

B. amnion

C. chorion

D. allantois

Answer: B



54. Which part of ovary in mammals acts as an

endocrine gland after ovulation?

A. stroma

B. germinal epithelium

C. vitelline membrane

D. Graafian follicle.

### Answer: D



55. In human female, menstruation can be

deferred by the administration of

A. combination of FSH and LH

B. combination of estrogen and

progesterone

C. FSH only

D. LH only

Answer: B

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