

BIOLOGY

BOOKS - FULL MARKS BIOLOGY (TAMIL ENGLISH)

HUMAN REPRODUCTION

Textbook Evaluation Solved

1. The mature sperms are stored in the

A. Seminiferous tubules
B. Vas deferens
C. Epididymis
D. Seminal vesicle
Answer:
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2. The male sex hormone testosterone is
secreted from

- A. Sertoli cells
- B. Leydig cell
- C. Epididymis
- D. Prostate gland



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3. The glandular accessory organ which produces the largest proportion of semen is

B. Bulbourethral gland
C. Prostate gland
D. Mucous gland
Answer:
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4. The male homologue of the female clitoris is
A. Scrotum

A. Seminal vesicle

- B. Penis
- C. Urethra
- D. Testis



- 5. The site of embryo implantation is the
 - A. Uterus
 - B. Peritoneal cavity

- C. Vagina
- D. Fallopian tube



- **6.** The foetal membrane that forms the basis of the umbilical cord is
 - A. Allantois
 - B. Amnion

- C. Chorion
- D. Yolk sac



- **7.** The most important hormone in initiating and maintaining lactation after birth is
 - A. a) Oestrogen
 - B.b) FSH

- C. c) Prolactin
- D. d) Oxytocin



- 8. Mammalian egg is
 - A. Mesolecithal and non-cleidoic
 - B. Microlecithal and non-cleidoic
 - C. Alecithal and non-cleidoic

D. Alecithal and cleidoic

Answer:



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9. The process which the sperm undergoes before penetrating the ovum is

- A. Spermiation
- B. Cortical reaction
- C. Spermiogenesis

D. Capacitation

Answer:



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10. The milk secreted by the mammary glands soon after child birth is called

A. Mucous

B. Colostrum

C. Lactose

D. Sucrose

Answer:



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11. Colotrum is rich in

A. IgE

B. IgA

C. IgD

D. IgM



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12. The Androgen Binding Protein (ABP) is produced by

- A. Leydig cells
- B. Hypothalamus
- C. Sertoli cells
- D. Pituitary gland



- **13.** Which one of the following menstrual irregularities is correctly matched?
 - A. Menorrhagia excessive menstruation
 - B. Amenorrhoea absence of menstruation
 - C. Dysmenorrhoea irregularity of menstruation

D. Oligomenorrhoea - painful menstruation

Answer:



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14. Find the wrongly matched pair

A. Bleeding phase - fall in oestrogen and progesterone

B. Follicular phase - rise in oestrogen

C. Luteal phase - rise in FSH level

D. Ovulatory phase - LH surge

Answer:



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15. A -In human male, testes are extra abdominal and lie in scrotal sacs.

R -Scrotum acts as thermoregulator and keeps temperature lower by $2^{\circ}\mathit{C}$ for normal sperm production.

A. a) A and R are true, R is the correct explanation of A

B. b) A and R are true, R is not the correct explanation of A

C. c) A is true, R is false

D. d) Both A and R are false

Answer:



16. A -Ovulation is the release of ovum from the Graafian follicle.

R -It occurs during the follicular phase of the menstrual cycle.

A. A and R are true, R is the correct explanation of A

B. A and R are true, R is not the correct explanation of A

C. A is true, R is false

D. Both A and R are false



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17. A -Head of the sperm consists of acrosome and mitochondria.

R -Acrosome contains spiral rows of mitochondria.

A. A and R are true, R is the correct explanation of A

B. A and R are true, R is not the correct explanation of A

C. A is true, R is false

D. Both A and R are false

Answer:



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18. Mention the differences between spermiogenesis and spermatogenesis.



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19. At what stage of development are the gametes formed in new born male and female?



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20. Expand the acronyms (a) FSH (b) LH (c) hCG (d) hPL



21. How is polyspermy avoided in humans?



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22. What is colostrum? Write its significance.



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23. Placenta is an endocrine tissue. Justify.



24. Draw a labeled sketch of a spermatozoan.



25. What is inhibin? State its functions.



26. Mention the importance of the position of the testes in the humans.



27. What is the composition of semen?



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28. Name the hormones produced from the placenta during pregnancy.



29. Differentiate between gametogenesis from embryogenesis.



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30. (a) Describe the structure of human spermatozoa with a labelled diagram.



31. Give a schematic representation of spermatogenesis and oogenesis in humans.



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32. Explain the various phases of the menstrual cycle.

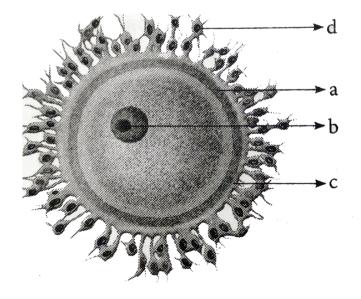


33. Explain the role of oxytocin and relaxin in parturition and lactation.



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34. Identify the given image and label its parts marked as a,b,c and d.



35. The following is the illustration of the sequence of ovarian events (a-i) in a human female.



- (a) Identify the figure that illustrates ovulation and mention the stage of oogenesis it represents.
- (b) Name the ovarian hormone and the pituitary hormone that have caused the above

mentioned events.

- (c) Explain the changes that occurs in the uterus simultaneously in anticipation.
- (d) Write the difference between C and H.



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Additional Questions 1 Marks Questions

1. The developing spermatoza are nourished by.....

- A. (a) Leydig cells
- B. (b) Sertoli cells.
- C. (c) Follicular cells
- D. (d) Epididymis



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2. Identify the correct sequence of reproductive events in human beings.

A. a) Insemination, Implantation, Fertilization, Parturition and Placentation. Fertilization, B. b)Implantation, Insemination, Placentation and Parturition. Implantation, Insemination, C. c) Fertilization, Parturition and Placentation.

D. d) Insemination, Fertilization,
Implantation, Placentation and

Answer:



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Parturition.

3. Expulsion of baby from the mother's womb is referred as.....

A. a) Ejection

- B. b) Relaxation
- C. c) Parturition
- D. d) Implantation



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4. Match the Column I with Column II

Column I

- (a) Ley dig cell
- (b) Sertoli cells
- (c) Corpus luteum
- (d) Placenta

Column II

- (i) Inhibin
- (ii) Testosterone
- (iii) Relaxin
- (iv) progesterone

- A. a) a-ii,b-I, c-iv, d-iii
- B. b) a-I, b-iii, c-ii,d-ii
- C. c) a-iv ,b-iii,c-I, d-ii
- D. d) a-iii, b-iv, c-ii, d-i



- 5. Which of the following statement is not correct?
- (i) Interstitial cells are seen surrounding the

seminiferous tubule. (ii) Nurse cells secrete inhibin. (iii) Males have single prostate gland which encircles the urethra. (iv) Insemination, Fertilization, Implantation, Placentation and Parturition. A. (a) I and ii B. (b) iii only C. (c))iii and iv D. (d) iv only Answer:

6. Assertion (A): In scrotum, the temperature is maintained $2-3^{\circ}\mathrm{C}$ lower than body temperature.

Reason (R): Reduced temperature results in efficient sperm production.

A. (a) R explains A.

B. (b) A is right R is wrong.

C. (c) A and R are right. R does not explains

A.

D. (d) Both A and R are wrong.

Answer:



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7. Assertion (A): The acrosome of the sperm cell contains sperm lysin.

Reason (R): Sperm lysin destroys the deformed sperm cells.

- A. a) R explains A.
- B. b) A is right R is wrong.
- C. c) A and R are right. R does not explains

A.

D. d) Both A and R are wrong.

Answer:



8. Assertion (A): Human ovum is non-cleidoic

Reason (R): Human ovum does not contain

yolk.

A. (a) R explains A.

B. (b) A is right R is wrong.

C. (c) A and R are right. R does not explains

A.

D. (d) Both A and R are wrong.

Answer:

9. Assertion (A): Menopause refers to the absence of menstruation during pregnancy.
Reason (R): Ovulation occurs during menstrual phase.

- A. R explains A.
- B. A is right R is wrong.
- C. A and R are right. R does not explains A.
- D. Both A and R are wrong.



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10. Assertion (A): Cervix is common site of ectopic pregnancies

Reason (R): Implantation of fertilized ovum outside uterus.

- A. (a)R explains A.
- B. (b) A is right R is wrong.

C. (c) A and R are right. R does not explains

A.

D. (d) Both A and R are wrong.

Answer:



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- **11.** Which of the following contributes to the seminal plasma?
- (i) Cowper's gland (ii) Seminal vesicles (iii)

Prostate gland (iv) Bulbourethral gland

A. a)	ii,	iii,	and	i۷
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B. b)I, ii and iii

C. c) I, iii and iv

D. d) all the above

Answer:



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12. Organ of copulation in human female is...

A. a) Cevix

- B. b) Fundus
- C. c) Vagina
- D. d) Uterus



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13. Identify the gland which is homologous to the Cowper's glands of male.

A. (a) Bartholin's gland

- B. (b) Bulbourethral gland
- C. (c) Prostate gland
- D. (d) Skene's gland



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14. Find out the proper sequence representing the parts of female reproductive system.

A. (a) Vagina \rightarrow Ovary \rightarrow Uterus \rightarrow

Cervix \rightarrow Infundibulum \rightarrow Oviduct

B. (b) Vagina \rightarrow Ovary \rightarrow Oviduct \rightarrow

Infundibulum o Cervix o Uterus

C. (c) Ovary \rightarrow Infundibulum \rightarrow Oviduct

ightarrow Uterus ightarrow Cervix ightarrow Vagina

D. (d) Oviduct \rightarrow Ovary \rightarrow Uterus \rightarrow

Infundibulum ightarrow Vagina ightarrow Cervix

Answer:



15. Spermatid - $\stackrel{A}{\longrightarrow}$ spermatozoa. What does

'A' stands for?

- A. Spermatogenesis
- **B.** Spermiation
- C. Spermiogenesis
- D. Gametogenesis

Answer:



16. An adult male produces an average ofsperms per day

- A. a) 200 million
- B.b) 300 million
- C. c) 300 billion
- D. d) 120 million

Answer:



17. Statement (1): During spermiation, the sperms are released into the cavity of seminiferous tubule.

Statement (2): During spermiogenesis, the spermatids get mature into sperms.

A. Statement 1 is correct, statement 2 is incorrect.

B. Statement 1 is incorrect, statement 2 is correct.

C. Both the statements 1 and 2 are correct.

D. Both the statements 1 and 2 are incorrect.

Answer:



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18. Statement (1): Siamese twins are conjoined twins who are joined during birth.

Statement (2): Dizygotic twins will be of same sex.

- A. Statement 1 is correct, statement 2 is incorrect.
- B. Statement 1 is incorrect, statement 2 is correct.
- C. Both the statements 1 and 2 are correct.
- D. Both the statements 1 and 2 are incorrect.



- **19.** Statement (1): The endometrium acts as transitory endocrine gland secreting progesterone
- Statement (2): Progesterone maintain pregnancy
 - A. a) Statement 1 is correct, statement 2 is incorrect.
 - B. b) Statement 1 is incorrect, statement 2 is correct.

C. c) Both the statements 1 and 2 are correct.

D. d) Both the statements 1 and 2 are incorrect.

Answer:



20. Statement (1): Human pregnancy lasts for 35 weeks.

Statement (2): During gestation, embryo's heart develops during 12th week.

A. (a) Statement 1 is correct, statement 2 is incorrect.

is correct.

C. (c) Both the statements 1 and 2 are

B. (a) Statement 1 is incorrect, statement 2

correct.

D. (d) Both the statements 1 and 2 are incorrect.



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21. Statement (1): Menstrual cycle occurs once in every 29 days.

Statement (2): The average age of menopause is 45-50 years.

A. a) Statement 1 is correct, statement 2 is incorrect.

B. b) Statement 1 is incorrect, statement 2 is correct.

C. c) Both the statements 1 and 2 are correct.

D. d) Both the statements 1 and 2 are incorrect.

Answer:



22. The first ejaculation of the semen in male is called as.......



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23. Identify the mismatched pair.

A. a) Castration - Orchidectomy

B. b) Spermiogenesis - Release of sperms

into the cavity of seminiferous tubule

C. c) Ovulation - Release of egg from ovary

D. d) Capacitation - Process enabling the sperm to penetrate the egg.

Answer:



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24. Given below are the extra embryonic membranes of which identify the outermost membrane.

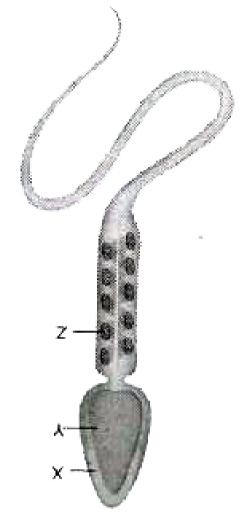
A. a) Amnion

- B.b) Chorion
- C. c) Yolk sac
- D. d) Allantois



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25. Identify the given figure and select the correct option representing X, Y and Z.





26. The entire process of spermatogenesis

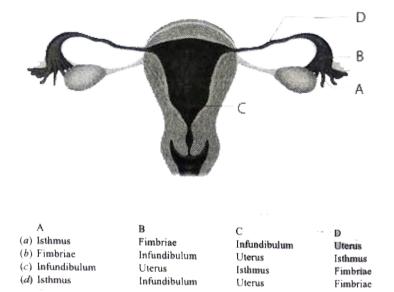
takes about days

- A. a) 60 days
- B. b) 44 days
- C. c) 64 days
- D. d) 50 days

Answer:



27. Observe the diagram and select the correct option denoting the proper sequence of parts.





28. Pick out the incorrect statements.

A. (a) The upper rounded portion of uterus is fundus.

B. (b) Uterus open into vagina through narrow cervix.

C. (c) Cervix is the organ of copulation in female.

D. (d) Vagina extends from the cervix and opens to exterior.

Answer:



29. What is the role of fimbriae?

A. a) Secretion of oestrogen and prolactin.

B. b) Helps in the collection of the ovum after ovulation.

C. c) Attaches the ovary to the abdominal cavity.

D. d) Connects oviduct with ovary.

Answer:



30. Name the enzyme found in the acrosomal tip of sperm cell.



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31. Which is not a correct statement regarding Oogenesis?

(i) During foetal development, cells in germinal epithelium of foetal ovary undergo mitosis and produce oogonia.

(ii) Oogonial cell divide and enter into prophase I of meiosis I and from primary oocytes.

(iii) Primary oocytes later develop into primary follicles.

(iv)No oogonia is formed or added after the foetal birth.

A. Only I

B. ii and iii

C. iv only

D. None of the above



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32. In embryo development of human beings, how long does it takes for a zygote to convert into morula?

- A. a) 24 hrs
- B. b) 36 hrs
- C. c) 48 hrs
- D. d) 72 hrs



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33. Identify the hormone which is produced only during the time of pregnancy

- A. a) Relaxin
- B. b) Oxytocin
- C. c) Progesterone
- D. d) Cortisol



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34. The type of antibodies present in colostrum.

- A. (a) IgE
- B. (b) Ig M
- C. (c) IgA
- D. (d) Ig B



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Additional Questions 2 Marks Questions

1. Enumerate the functions of reproductive system.



2. Define the terms (a) Insemination (b) Fertilization.



3. What are seminiferous tubules? Mention its role.



4. Name the cells noticed in the epithelial layer of seminiferous tubule.



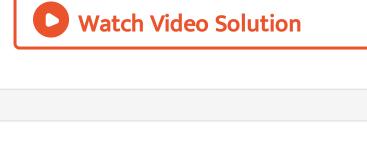
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5. Mention the role of epididymis.



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6. Seminal plasma is acidic or alkaline. Write its composition.



7. Define Semen.



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8. Why do males have Penis?



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9. Point out the female accessory organs.



10. Define the nature of uterus.



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11. What are the components that make up external genitalia female?



12. Name the accessory reproductive glands in female which are homologous to (a) Cowper's gland and (b) Prostate gland.



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13. Define gametogenesis.



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14. Define spermiogenesis and spermiation.

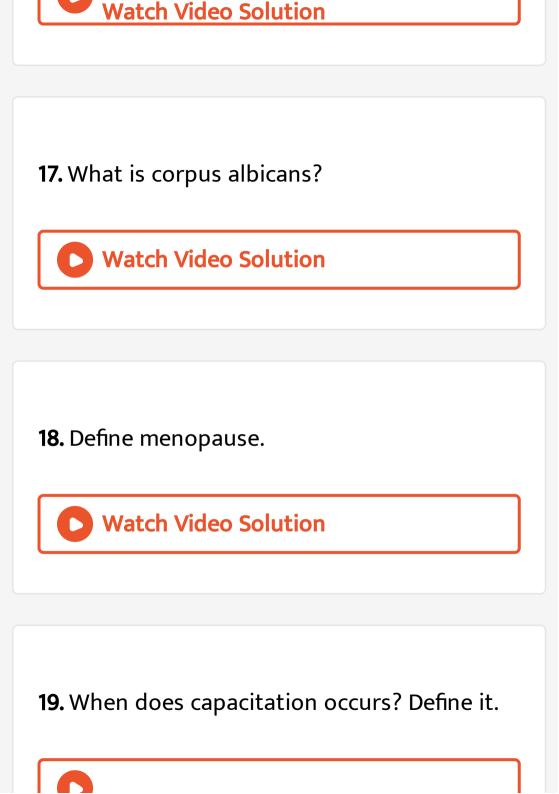


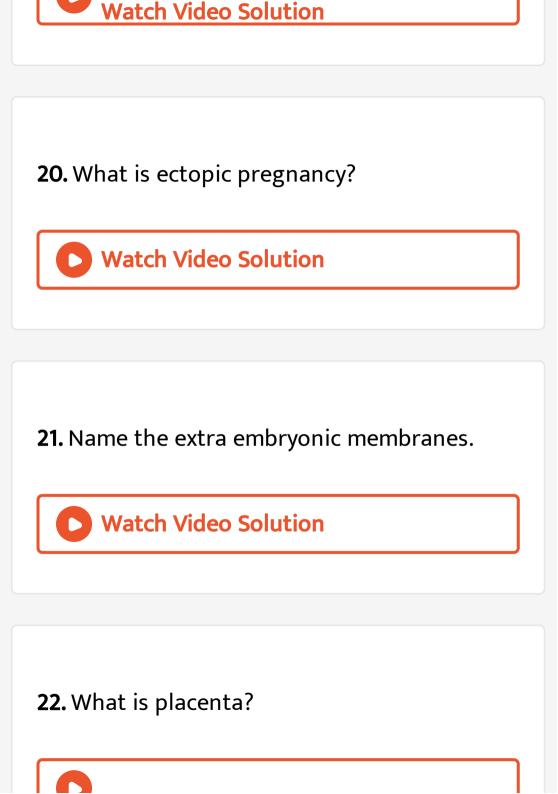
15. What do you mean by 'Sperm lysin'? Mention its function.



16. Menstruation - a cyclic event occurring in every normal woman throughout her fertile period . Name the various phases of the menstruation and explain it.







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23. Name the organs developed from embryonic ectoderm.



24. Name the hormones produced from the placenta during pregnancy.



25. Name the hormones produced from the placenta during pregnancy.



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26. State the role of relaxin.



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27. Define parturition and labour.



28. What do you mean by 'false labour'?



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29. Explain the term C-section.



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Additional Questions 3 Marks Questions

1. What is organogenesis?



2. What are primary reproductive organs? What role does they play in organisms?



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3. Scrotum acts as a thermoregulator - Justify.



4. Write any three statements on Sertoli cells.



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5. Give a brief account on leydig cells.



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6. Name the accessory glands of the male reproductive system.



7. State the location and secretion of prostate gland.



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8. Write a note on hymen.



9. "Role of hormones in spermatogenesis" - comment on the statement.



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10. Define menstrual cycle. Explain its various phase.



- 11. Give reason for the following statement.
- (i) Luteal phase of menstrual cycle is also called as secretory phase.
- (ii) Menstrual hygiene is essential for women.



- 12. Give reason for the following statement.
- (i) Luteal phase of menstrual cycle is also called as secretory phase.
- (ii) Menstrual hygiene is essential for women.



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13. Name the absorbents or materials used to manage menstruation.



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14. What is meant by acrosomal reaction?



15. Differentiate between monozygotic and Dizygotic twins.



16. What is Morula?



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17. What is Gastrulation?



18. Name the three basic tissue systems in the flowering plants. Give the tissue names under each system.



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19. Define lactation and explain its hormonal background.



20. What is "let-down reflex"? **Watch Video Solution** 21. Explain Foetal-ejection reflex. **Watch Video Solution** 22. Give a short note on uterine wall layers.

Additional Questions 5 Marks Questions

1. Draw and label the structure of a human ovum.



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2. (b) Explain the structure and function of mammary glands.



3. Explain the process of spermatogenesis with diagram.



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4. (a) Describe the structure of human spermatozoa with a labelled diagram.



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5. Explain the process of oogenesis.



6. Write a note on embryonic membranes.



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7. Name the three primary germ layers of embryo. Also mention any three organs or organ systems developing from each layer.



Higher Order Thinking Skills Hots Questions

1. Give the alternate terminologies for (a) Spermatogonia (b) Embryonic ectoderm



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2. Mention the production site and action site of following hormones. (a) GnRH (b) Relaxin



3. May 28^{th} is celebrated as annual Menstrual Hygiene Day (MHD). State its importance.



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4. Suggest few hygiene tips to face healthy and happy menses .

