

18
CHAPTER

REPRODUCTION

1. **What is/are basis for asexual reproduction?**
(A) Mitosis (B) Meiosis
(C) Sex hormones (D) All (A), (B) and (C)
2. **What is advantage of asexual reproduction?**
(A) Organisms increases rapidly (B) Organisms are morphologically alike
(C) Organisms are genetically alike (D) All (A), (B) and (C)
3. **What is advantage of sexual reproduction?**
(A) Genetically varied individuals are born
(B) Chances of survival increases
(C) Chances of evolution increases
(D) All (A), (B) and (C)
4. **Natural methods of asexual reproduction in plants is/are:**
(A) Spores (B) Vegetative propagation
(C) Apomixis (D) All (A), (B) and (C)
5. **Artificial methods of asexual reproduction in plants is/are:**
(A) Cuttings (B) Tissues culture
(C) Both (A) and (B) (D) Alternation of generation
6. **A single mushroom may produce how many spores per minute at the peak of its reproduction?**
(A) 500,000 (B) 50,000
(C) 80,000 (D) 200,000

7. **Perennating organs are associated with which type of asexual reproduction?**
(A) Sporulation (B) Apomixis
(C) Vegetative propagation (D) Cutting
8. **In apomixis, an embryo is created from a diploid cell in the:**
(A) Pollen tube (B) Leaf
(C) Ovule (D) All of the choices are correct
9. **Asexual reproduction differs from sexual reproduction in that it does not require:**
(A) 1 parent (B) 2 parent
(C) Spores (D) Vegetative parts
10. **Asexual reproduction does not introduce:**
(A) Variation
(B) Similarity between parents and offsprings
(C) Same chromosomal number in offsprings
(D) All of the choices are incorrect
11. **Which of the following statements is true of clones?**
(A) Clones show variation
(B) Clones have DNA identical to parent
(C) Clones are formed by meiotic division
(D) All the choices are incorrect
12. **Vegetative propagation does not involve:**
(A) Root parts (B) Stem parts
(C) Leaf parts (D) Flower parts
13. **The mass of dividing undifferentiated cells of the cut end of the shoot is called:**
(A) Callus (B) Periblem
(C) Dermatogen (D) Pericycle
14. **One of the following is not a method of asexual reproduction:**
(A) Sporulation (B) Gametogenesis
(C) Apomixis (D) Parthenogenesis

15. **Tissue culture is a technique used to produce a large number of plants quickly which are all:**
(A) Variable (B) Unicellular
(C) Identical (D) All (A), (B) and (C)
16. **Which of the following disadvantages applies to tissue culture?**
(A) Clone may be genetically unstable
(B) Clone may be infertile
(C) Clone karyotype may be altered
(D) All of the choices are correct
17. **A flagellated motile sperm fertilizing a non-motile egg, is called:**
(A) Isogamy (B) Anisogamy
(C) Oogamy (D) All of the choices are correct
18. **A type of syngamy in which both fusing gametes are flagellated but different in size are known as:**
(A) Isogamy (B) Anisogamy
(C) Oogamy (D) All of the choices are correct
19. **A type of syngamy in which both fusing gametes are flagellated and same in size are known as:**
(A) Isogamy (B) Anisogamy
(C) Oogamy (D) All of the choices are correct
20. **In gymnosperms the main plant is diploid and:**
(A) Homosporous (B) Heterosporous
(C) Microsporous (D) Megasporous
21. **In gymnosperms female gametophyte consists of:**
(A) Pollen tube (B) Microspore
(C) 2 to 5 archegonia (D) Both (B) and (C)
22. **In gymnosperms male gametophyte develops from:**
(A) Microspore (B) Megaspore
(C) Embryo sac (D) Synergids
23. **In gymnosperms male gametophyte consists of:**
(A) Archegonia (B) Megaspore mother cell
(C) Pollen tube (D) Ovule

24. In angiosperms what gives rise to seed after fertilization.
- (A) Microsporangium (B) Pollen tube
(C) Mega sporangium (D) None of these
25. In gymnosperms and angiosperms, the egg is produced in a female structure called:
- (A) A seed (B) A stamen
(C) An ovule (D) A pollen grain
26. If someone gives you a plant and tells you that it is an angiosperm, you know that during its life cycle it will produce:
- (A) Swimming sperm (B) A prothallus
(C) Flowers (D) Cones
27. The transfer of pollen grains to the female part of the plant is called:
- (A) Germination (B) Reproduction
(C) Pollination (D) Fertilization
28. The production of new plants from underground stems is an example of:
- (A) Sexual reproduction (B) Asexual reproduction
(C) Zygote (D) None of the above
29. Which one of the following is the male reproductive part of a flower?
- (A) Stamen (B) Sepal
(C) Petal (D) Pistils
30. In seed plants, sperm travel down through what to reach the egg?
- (A) Stigma tube (B) Ovule tube
(C) Pollen tube (D) Stamen tube
31. A carpel is a leaf which has been modified to produce:
- (A) Microsporangia (B) 2 male gametes
(C) Pollen grains (D) Ovules
32. The stamens are leaves modified for the production of:
- (A) Microspores (B) Megaspores
(C) Ovules (D) Seed

33. **The sepals and petals are:**
(A) Reproductive parts of flower (B) Non-reproductive parts of flower
(C) Parts of gametophyte (D) Both (A) and (B)
34. **The ovule contains:**
(A) Microsporangium (B) Male gametophyte
(C) Embryo sac (D) All (A), (B) and (C)
35. **The unisexual flowers are called:**
(A) Staminate (B) Carpellate
(C) Both (A) and (B) (D) Monoecious
36. **If staminate and carpellate flowers are present on same plant it is termed as:**
(A) Monoecious (B) Dioecious
(C) Unisexual (D) None of the above
37. **Date palms are:**
(A) Dioecious (B) Monoecious
(C) Neuter (D) Biexual
38. **In angiosperms, double fertilization produces two distinct portions of the seed. The endosperm portion's role is to:**
(A) Develop into the embryo (B) Nourish the embryo
(C) Develop into the mature sperm (D) Serve as a reservoir for extra DNA
39. **Each of the following is a part of a seed except the:**
(A) Embryo (B) Endosperm
(C) Seed-coat (D) Gametophyte
40. **The mature female gametophyte of an angiosperm is:**
(A) The archegonium and its egg cell
(B) The ovule inside the ovary
(C) The carpel after pollination
(D) An embryo sac with 8 nuclei and 7 cells
41. **Which part ultimately matures into a fruit?**
(A) Integument (B) Ovary
(C) Archegonium (D) Ovule

42. Which of the following is part of the third whorl of flower?
(A) Calyx (B) Corolla
(C) Petal (D) Stamen
43. Which of the following is formed in the double fertilization and becomes an endosperm?
(A) Synergid cells (B) Antipodal cells
(C) Primary endosperm nucleus (D) Triploid (3n) nucleus
44. A pollen grain is:
(A) Immature male gametophyte (B) Spore
(C) Fruiting body (D) Mature male gametophyte
45. In planst, spores are formed by 1, whereas gametes are formed by 2:
(A) 1-meiosis, 2-mitosis (B) 1-fission, 2-fusion
(C) 1-meiosis, 2-meiosis (D) 1-mitosis, 2-mitosis
46. From life cycle point of view the most important part of a plant is:
(A) Flower (B) Leaf
(C) Stem (D) Root
47. The main embryo develops from the structure formed as a result of fusion of:
(A) 2 polar nuclei of embryo sac (B) Definitive nucleus and male gamete
(C) Egg cell and male gamete (D) Male gamete and synergids
48. The fertilization occurs in:
(A) Ovary (B) Ovule
(C) Embryo sac (D) Nucellus
49. The part of embryo just below the cotyledons that terminates into radicle is called:
(A) Epicotyl (B) Hypocotyl
(C) Plumule (D) None of these
50. The part of embryo just above the cotyledons that terminates into plumule is called:
(A) Epicotyl (B) Hypocotyl
(C) Radicle (D) Coleorhiza

51. A protective sheath surrounding the plumule is:
(A) Coleoptile (B) Coleorhiza
(C) Cotyledon (D) Scutellum
52. A protective sheath surrounding the radicle is:
(A) Coleoptile (B) Coleorhiza
(C) Cotyledon (D) Scutellum
53. Single large shield shaped cotyledon of monocot seed is called:
(A) Coleoptile (B) Coleorhiza
(C) Cotyledon (D) Scutellum
54. It is defined as a cluster of flowers, arising from the main stem axis or peduncle:
(A) Inflorescence (B) Phosphorescence
(C) Luminescence (D) Senescence
55. Which type of inflorescence is shown in the following diagram?
(A) Corymb (B) Umbel
(C) Raceme (D) Spike
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56. In which type of inflorescence flowers develop into aeropetal succession.
(A) Racemose (B) Cymose
(C) Dichasial cyme (D) Scorpioid cyme
57. In which type of inflorescence flowers are covered by large bracts called spathes:
(A) Racemose (B) Cymose
(C) Capitulum (D) Spikelet
58. The type of racemose inflorescence with a short axis and multiple floral pedicels of equal length that appear to arise from a common point is called:
(A) Corymb (B) Umbel
(C) Raceme (D) Spike

59. A type of uniparous cyme in which succeeding branches are produced on same side is termed as:
- (A) Helicoid cyme (B) Scorpioid cyme
(C) Dichasial cyme (D) None of these
60. A type of uniparous cyme in which succeeding branches are produced on alternate sides is termed as:
- (A) Helicoid cyme (B) Scorpioid cyme
(C) Dichasial cyme (D) None of these
61. It is type of recemose inflorescence that is flat-topped or convex because the outer pedicels are progressively longer than the inner ones.
- (A) Corymb (B) Capitulum
(C) Spadix (D) Spike
62. What is required?
- (A) Water (B) Suitable temperature
(C) Both (A) and (B) (D) None of these
63. The process in which fruit develops without fertilization is called:
- (A) Parthenogenesis (B) Prthenocarp
(C) Viviparous germination (D) Apomixis
64. The pollen grain consists of:
- (A) Exine part
(B) Intine part
(C) Tube nucleus and generative nucleus
(D) All (A), (B) and (C)
65. Hypogeal germination takes place due to rapid growth of:
- (A) Epicotyl (B) Hypocotyl
(C) Cotyledon (D) All (A), (B) and (C)
66. Epigeal germination takes place due to rapid growth of:
- (A) Epicotyl (B) Hypocotyl
(C) Cotyledon (D) All (A), (B) and (C)
67. A special type of reproduction in which seed starts germinating inside fruit is:
- (A) Epigeal germination (B) Hypogeal germination
(C) Viviparous germination (D) All choices are correct

68. The first organ to emerge from the germinating seed is:
- (A) Radicle (B) Plumule
(C) Cotyledon (D) Epicotyl
69. Promotion of flowering by cold treatment given to imbibed seeds or young plants is known as:
- (A) Parthenocarpy (B) Parthenogenesis
(C) Apomixis (D) Vernalization
70. Spinach is:
- (A) Long day plant (B) Short day plant
(C) Day neutral plant (D) None of these
71. Phytochrome exists in two forms i.e., P660 and:
- (A) P307 (B) P370
(C) P703 (D) P730
72. Phytochrome comprises a pigment and a:
- (A) Lipid (B) Carbohydrate
(C) Mineral (D) Protein
73. It has been found that red light promotes flowering in:
- (A) Long day plants (B) Short day plants
(C) Neutral day plants (D) None of these
74. The hormone florigen is produced in:
- (A) Leaves (B) Flower
(C) Stem (D) Roots
75. A form of asexual reproduction in which new individual grows out as a small out growth and eventually separates from parent body is called:
- (A) Forming a spore (B) Budding
(C) Regeneration (D) Fission
76. Reproduction of egg without fertilization by sperm is termed as:
- (A) Parthenogenesis (B) Parthenocarpy
(C) Regeneration (D) Budding

77. The technique of producing a genetically identical copy of an organism by replacing the nucleus of an unfertilized ovum with the nucleus of a body cell from the organism is:
- (A) Budding (B) Cloning
(C) Parthenocarpny (D) Fission
78. Fraternal twins:
- (A) Can be only two boys (B) Can be only two girls
(C) Cannot be one boy and one girl (D) Can be one boy and one girl
79. Sexual reproduction is important to avoid:
- (A) Variation (B) Chances of survival
(C) Genetic monotony (D) All (A), (B) and (C)
80. Which of the following cell type is haploid?
- (A) Primary spermatocyte (B) Spermatogonium
(C) Sertoli cell (D) Secondary spermatocyte
81. Spermatogenesis and oogenesis both involve:
- (A) Mitosis only (B) Meiosis only
(C) Both mitosis and meiosis (D) All (A), (B) and (C) are incorrect
82. After meiosis, what differentiates into the mature sperm?
- (A) Primary spermatocyte (B) Spermatid
(C) Secondary spermatocyte (D) Spermatogonium
83. The animals which lay eggs are called:
- (A) Oviparous (B) Viviparous
(C) Dioecious (D) Neuter
84. In terrestrial conditions which type fertilization is more common:
- (A) External (B) Internal
(C) Self (D) None of these
85. In mammalian males, the reproductive and excretory system share the same:
- (A) Ureter (B) Vas defrens
(C) Urinary bladder (D) Urethra

86. **External male genitalia are:**
(A) Vasa efferentia and penis (B) Seminiferous tubules and penis
(C) Scrotum and penis (D) None of these
87. **Human testes are packed with about how many seminiferous tubules which produce about how many million sperms every day?**
(A) 200, 20 (B) 300, 40
(C) 500, 30 (D) 500, 10
88. **Three sets of glands secrete fluids which combine with the sperm to form:**
(A) Interstitial fluid (B) Semen
(C) Amniotic fluid (D) Both (A) and (B)
89. **A human female has around how many oocytes in each of her ovary?**
(A) 30,000 (B) 200,000
(C) 300,000 (D) 20,000
90. **Fertilization of human eggs most often takes place in the:**
(A) Ovary (B) Uterus
(C) Oviduct (Fallopian tube) (D) Cervix
91. **In human female only one ovum is usually discharged from the ovary at one time and it is called:**
(A) Parturition (B) Menstruation
(C) Ovulation (D) Implantation
92. **Where does the uterus opens into the through cervix?**
(A) Fallopian tube (B) Urethra
(C) Vagina (D) All of the choices are correct
93. **The follicle cells, after release of the egg, are modified to form a special structure called:**
(A) Endometrium (B) Perimetrium
(C) Graffian follicle (D) Corpus luteum
94. **In mammals that are seasonal breeders, females are receptive only once a year. This is called:**
(A) A follicular cycle (B) An estrous cycle
(C) A menstrual cycle (D) A luteal cycle

95. The lining or inner layer of the uterus is called the:
(A) Myometrium (B) Perimetrium
(C) Endometrium (D) Both (A) and (C)
96. What event occurs in the menstrual cycle when the level of progesterone declines?
(A) Ovulation (B) Beginning of menses
(C) Formation of corpus luteum (D) Maturation of ovarian follicle
97. What is produced mainly by the corpus luteum in the ovary following ovulation?
(A) Progesterone (B) Follicle stimulating hormone
(C) Luteinizing hormone (D) Chorionic gonadotrophic hormone
98. From which of the following structures is the secondary oocyte ovulated?
(A) Corpus luteum (B) Graffian follicle
(C) Primary follicle (D) Germinal epithelium
99. The process by which _____ becomes embedded in endometrium is called _____.
(A) morula, parturition (B) Blastocyst, parturition
(C) Blastocyst, implantation (D) Morula, implantation
100. What controls the release of milk from the mammary glands?
(A) Oxytocin (B) Follicle stimulating hormone
(C) Luteinizing hormone (D) None of these
101. An egg fertilized in the laboratory and then implanted in the uterus for development is called:
(A) Cloning (B) Test tube baby
(C) Both (A) and (B) (D) In vivo fertilization
102. The period starting from conception up to the birth of baby is called:
(A) Implantation period (B) Gestation period
(C) Extra uterine period (D) Imprinting period
103. Menopause in females comes at the age of:
(A) 30 to 40 years (B) 45 to 50 years
(C) 60 to 65 years (D) 70 years

- 104. The hormone from the hypothalamus stimulating release of FSH from the anterior pituitary is:**
- (A) Gonadotropin (B) Oxytocin
(C) Luteinizing hormone (D) Progesterone
- 105. Sexually transmitted disease (STD) caused by *Treponema pallidum* is:**
- (A) Syphilis (B) Genital herpes
(C) Gonorrhea (D) AIDS
- 106. Genital herpes is type of STD caused by:**
- (A) A bacterium (B) A sporozoan
(C) A virus (D) A fungus
- 107. What followings is the egg is not fertilized?**
- (A) Menstruation (B) Pregnancy
(C) Implantation (D) All (A), (B) and (C)
- 108. It is a tube that connects a developing embryo or fetus to the placenta:**
- (A) Amnion (B) Chorionic villum
(C) Umbilical cord (D) Allantois
- 109. Gonorrhea is:**
- (A) Bacterial disease (B) Viral disease
(C) Protozoanal disease (D) Fungal disease
- 110. Infertility is overcome by a technique known as:**
- (A) In vitro fertilization (B) In vivo fertilization
(C) Both (A) and (B) (D) None of these
- 111. The tissue attaching the embryo to the wall of uterus is:**
- (A) Graffian follicle (B) Corpus luteum
(C) Placenta (D) All choices are incorrect
- 112. This hormone would be at an increased level in a mother who is breast feeding:**
- (A) Thyroxine (B) Prolactin
(C) Aldosterone (D) Insulin

- 113. The contractions of the muscles of uterus during parturition are stimulated by:**
(A) Prolactin (B) GnRH
(C) FSH (D) Oxytocin
- 114. During females fertile years, about how many oocytes develop into mature eggs?**
(A) 20,000 (B) 250,000
(C) 300,000 (D) 450
- 115. Which hormone stimulates process of ovulation?**
(A) Prolactin (B) LH
(C) FSH (D) Oxytocin
- 116. The time when teenage males begin to make and release sperms is called:**
(A) Menopause (B) Menstruation
(C) Puberty (D) All of the above
- 117. The male reproductive cell is the:**
(A) Semen (B) Sperm
(C) Ovum (D) None of the above
- 118. The male reproductive organ is the:**
(A) Penis (B) Testis
(C) Ovary (D) All
- 119. Testosterone is the:**
(A) Male sex hormone
(B) Female sex hormone
(C) A chemical needed for menopause
(D) Type of vitamin
- 120. Some body changes that occur in males during puberty include:**
(A) A deep voice (B) Facial hair
(C) Both A and B (D) None of the above
- 121. Sperm is made in the:**
(A) Penis (B) Testes
(C) Prostate gland (D) Abdominal cavity

- 122. The sac containing the testes is the:**
(A) Scrotum (B) Epididymis
(C) Testicle (D) Vas efference
- 123. Another name for a testis is the:**
(A) Testicle (B) Ovary
(C) Gland (D) Vas efference
- 124. The function of the epididymis next to each testis is to:**
(A) Secrete semen
(B) Store sperm temporarily
(C) Lubricate the sperm for more effective movement
(D) None of the above
- 125. The fluid produced by glands of the male reproductive system is:**
(A) Sperm (B) Semen
(C) Urine (D) All
- 126. Semen protects the sperm from:**
(A) Leaving the testis (B) Mutations
(C) Dehydration (D) All
- 127. The tube from the urinary bladder through the penis is the:**
(A) Urethra (B) Sperm duct
(C) Vas deferens (D) None of the above
- 128. Another name for sperm duct is:**
(A) Epididymis (B) Penis
(C) Vas deferens (D) None of the above
- 129. Which gland enlarges to block urine from leaving the bladder when sperms are ejaculated?**
(A) Pancreas (B) Penile
(C) Prostate (D) All
- 130. The penis becomes erect because:**
(A) Spongy tissues inside it fills with blood
(B) There is a hinge joint between the pelvic bone and the penile bone
(C) It fills with urine or sperm
(D) None of the above

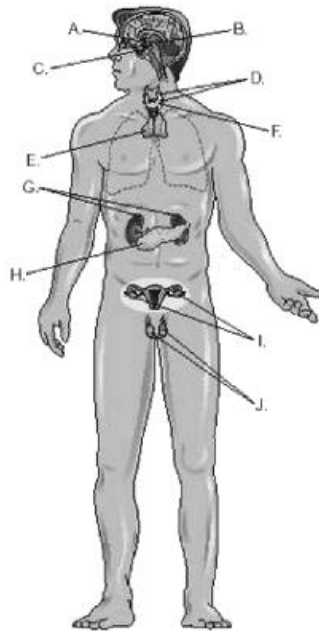
131. The male hormone testosterone is produced by:
(A) Leydig cells (B) Seminiferous tubules
(C) Epididymis (D) Vas deferens
132. Male gonads are called:
(A) Testes (B) Ovaries
(C) Scrotal sacs (D) Sperm duct
133. The fertilized egg is called:
(A) Ovum (B) Blastocyst
(C) Diploid cell (D) Zygote
134. The ultimate stoppage of menstrual cycle is called:
(A) Puberty (B) Menarche
(C) Menopause (D) Old age
135. The process by which the sperms are produced is known as:
(A) Ovulation (B) Spermatogenesis
(C) Oogenesis (D) Gestation
136. The tube that carries the sperms out of the tests is the:
(A) Vasa efferentia (B) Vas deferens
(C) Oviduct (D) Epididymis
137. The process by which the sperms are released is called:
(A) Spermatogenesis (B) Oogenesis
(C) Ovulation (D) Ejaculation
138. The external genitalia in females is called:
(A) Pubis (B) Vagina
(C) Vulva (D) Clitoris
139. Sterilisation in males is called as:
(A) Tubectomy (B) Vasectomy
(C) IVF (D) GIFT
140. Binary fission is seen in:
(A) Plasmodium (B) Hydra
(C) Amoeba (D) Mucor

141. The endosperm nucleus is:
(A) Haploid (B) Diploid
(C) Triploid (D) Tetraploid
142. The fertilization of human egg by the sperm takes place in:
(A) Ovary (B) Oviduct
(C) Vagina (D) Uterus
143. Pollen tube contains:
(A) One male nucleus (B) Two male nuclei
(C) Three male nuclei (D) Four male nuclei
144. If the pollen is transferred to the stigma of the same flower, it is called:
(A) Allogamy (B) Autogamy
(C) Cross pollination (D) Double fertilization
145. Pollen grains are produced by:
(A) Ovary (B) Filament
(C) Stigma (D) Anther
146. The collective name for sepals is:
(A) Androecium (B) Gynoecium
(C) Corolla (D) Calyx
147. The individual units of corolla are called:
(A) Petals (B) Sepals
(C) Stamens (D) Pistils
148. The attachment of the embryo to the uterus is called:
(A) Gestation (B) Fertilisation
(C) Implantation (D) Menstruation
149. The onset of the reproductive age is called:
(A) Menstruation (B) Menarche
(C) Menopause (D) Puberty
150. The first time that the monthly bleeding occurs is called:
(A) Maturity (B) Menarche
(C) Menopause (D) Puberty

151. The most important part of the plant for continuation of the life of the species is:
(A) Stem (B) Root
(C) Flower (D) Leaf
152. The type of vegetative propagation seen in *Chrysanthemum* is:
(A) Runner (B) Sucker
(C) Stolon (D) Offset
153. Successfully grafted plants bear the flowers and fruits characteristic of the:
(A) Scion (B) Stock
(C) Either scion or stock (D) A mixture of scion and stock
154. Sugarcane is normally grown by:
(A) Cutting (B) Grafting
(C) Layering (D) Seeds
155. Unequal daughter cells are produced by:
(A) Fragmentation (B) Sporulation
(C) Fission (D) Budding
156. Vegetative propagation in sweet potato is by:
(A) Stem (B) Root
(C) Leaf (D) None of the above
157. Vegetative propagation in *Bryophyllum* is by:
(A) Stem (B) Root
(C) Leaf (D) None of the above
158. An example of a hermaphrodite is:
(A) Frog (B) Fish
(C) Earthworm (D) Hydra
159. Multiple fission is seen in:
(A) Yeast (B) Paramoecium
(C) Plasmodium (D) Rhizopus
160. Progesterone is secreted by:
(A) Ovarian follicle (B) Graffian follicle
(C) Corpus luteum (D) Corpus albicans

161. The hormone secreted by the pituitary to start the ovulation process is:
- (A) FSH (B) Luteinizing hormone
(C) Oestrogen (D) Progesterone
162. Sperms are produced at a temperature that is ————— the body temperature.
- (A) Same as (B) Lower than
(C) Higher than (D) Immaterial to
163. The part of the sperm that contains the lytic enzyme is:
- (A) Acrosome (B) Nucleus
(C) Mid-piece (D) Tail
164. The life span of the sperm is:
- (A) 2 days (B) 1-3 days
(C) 1-3 weeks (D) 7 days
165. The sperms are temporarily stored in:
- (A) Vas deferens (B) Vas efferens
(C) Epididymis (D) Bladder
166. The endocrine system is made up of:
- (A) Hormones (B) Glands
(C) Gonads (D) Prostaglandins
167. The endocrine system:
- (A) Affects only the reproductive system
(B) Releases hormones into the bloodstream
(C) Competes with the nervous system
(D) is made up primarily of glands with ducts
168. Which of the followings is a gland of the endocrine system?
- (A) Sweat gland (B) Tear gland
(C) Pituitary gland (D) All of the above

169. Figure shows the body's:



- (A) Hormones (B) Target cells
(C) Endocrine glands (D) Exocrine glands
170. Which structure in figure regulates the level of calcium in the blood?
(A) C (B) D
(C) A (D) F
171. What is the function of the structure labelled H in figure?
(A) to produce sex hormones (B) to produce thyroxine
(C) to produce insulin and glucagon (D) to produce thymosin
172. Which structure in figure releases hormones that regulate many of the other endocrine glands?
(A) B (B) D
(C) H (D) J
173. Unlike endocrine glands, exocrine glands:
(A) Release secretions through ducts
(B) Release hormones
(C) Release secretions directly into the bloodstream
(D) are found throughout the body

- 174. Unlike non-steroid hormones, steroid hormones:**
- (A) Remain outside the target cells (B) Bind to receptors inside the target cells
(C) have no target cells (D) are made of proteins
- 175. A thermostat is a good example of:**
- (A) Hormone-receptor complex (B) Feedback system
(C) Prostaglandin (D) Exocrine gland
- 176. One way the endocrine system helps maintain homeostasis is by having:**
- (A) Each gland secrete only one hormone
(B) Two hormones with opposite effects regulate certain things
(C) Only steroid hormones regulate important functions
(D) The pituitary gland regulate all the other glands
- 177. Feedback inhibition means that an increase in a substance will:**
- (A) Decrease production of that substance
(B) Increase production of that substance
(C) Increase the production of other substances
(D) Stop production of another substance
- 178. Which endocrine gland secretes sex hormones?**
- (A) Adrenal medulla (B) Testis
(C) Hypothalamus (D) Pituitary
- 179. Which gland fails to produce enough of its hormone in the disease diabetes mellitus?**
- (A) Adrenal (B) Hypothalamus
(C) Pancreas (D) Parathyroid
- 180. Which gland produces epinephrine and norepinephrine?**
- (A) Parathyroid (B) Hypothalamus
(C) Pituitary (D) Adrenal

- 181. Puberty usually begins between the ages of:**
(A) 5 and 8 (B) 9 and 15
(C) 16 and 19 (D) 20 and 25
- 182. Which hormones stimulate the gonads to mature?**
(A) FSH and LH (B) Estrogens
(C) Androgens (D) Testosterone and progesterone
- 183. The testes and the ovaries do not begin making active reproductive cells until:**
(A) Birth (B) Fertilization
(C) Gastrulation (D) Puberty
- 184. Testosterone is needed for the development of:**
(A) Egg (B) Sperm
(C) the uterus (D) All of the above
- 185. Specialized sex cells are known as:**
(A) Gametes (B) Hormones
(C) Gonads (D) Organs
- 186. How many ova do the ovaries usually produce?**
(A) One per day (B) About 20 per year
(C) One between them each month (D) 200 million at a time
- 187. Which structure produces sperm?**
(A) Scrotum (B) Epididymis
(C) Seminiferous tubules (D) Vas deferens
- 188. Which of the followings is not a function of the female reproductive system?**
(A) to produce eggs (B) to prepare the body to carry an embryo
(C) to deliver sperm (D) to release eggs into the Fallopian tubes
- 189. Which organ system is responsible for making and delivering sperm?**
(A) Female reproductive system (B) Endocrine system
(C) Nervous system (D) Male reproductive system

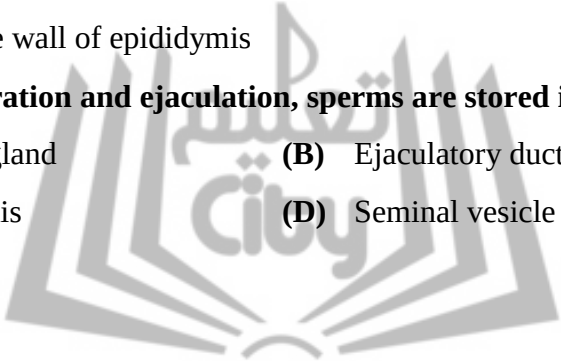
- 190. Which of the followings is not a phase in the menstrual cycle?**
- (A) Menstruation (B) Luteal
(C) Fertilization (D) Ovulation
- 191. One menstrual cycle usually lasts about a:**
- (A) Day (B) Week
(C) Month (D) Year
- 192. During the menstrual cycle, LH and FSH are at peak, causing the:**
- (A) Corpus luteum to disintegrate
(B) Follicle to release a mature egg
(C) Uterine lining to detach from the uterus
(D) the lining of the uterus to thicken
- 193. Menstruation does not occur if the:**
- (A) Uterine lining thickens (B) Estrogen level falls
(C) Progesterone level falls (D) Egg is fertilized
- 194. A zygote is a:**
- (A) Two-celled embryo (B) Solid ball of about 50 cells
(C) Blastocyst (D) Fertilized egg
- 195. The chances of fertilization are very good if sperms are present and is:**
- (A) Blastocyst is already present (B) Egg in the Fallopian tubes
(C) Woman is menstruating (D) All of the above
- 196. Which of the following are required for fertilization to occur inside the female body?**
- (A) Sperm must swim into a Fallopian tube
(B) An egg must be present in the Fallopian tube
(C) The nucleus of a sperm must enter an egg cell
(D) All of the above

- 197. During the process of fertilization, which step happens first?**
- (A) The sperm's nucleus enters the egg cell
 - (B) Enzymes break down the protective layer of the egg cell membrane
 - (C) A sperm attaches to a binding site on the egg cell membrane
 - (D) The cell membrane of the egg cell changes
- 198. Where does fertilization usually occur?**
- (A) Fallopian tube
 - (B) Ovary
 - (C) Uterus
 - (D) Vagina
- 199. What is the result of gastrulation?**
- (A) A blastocyst
 - (B) A zygote
 - (C) The amnion
 - (D) Germ layers
- 200. Which of the followings are formed during gastrulation?**
- (A) Endoderm
 - (B) Ectoderm
 - (C) Mesoderm
 - (D) All of the above
- 201. Which of the following processes happens last?**
- (A) Gastrulation
 - (B) Implantation
 - (C) Fertilization
 - (D) Ovulation
- 202. Which of the followings is a function of the placenta?**
- (A) Mixing the blood of the mother and the fetus
 - (B) Protecting the fetus from any drugs or alcohol in the mother's body
 - (C) Providing nutrients to the fetus
 - (D) Cushioning and protecting the fetus
- 203. The placenta connects the:**
- (A) Fetus to the mother's uterus
 - (B) Ectoderm to the endoderm
 - (C) Umbilical cord to the mother's vagina
 - (D) Uterus to the cervix

- 204. Which stage of the human life cycle occurs first?**
- (A) Puberty (B) Adulthood
(C) Adolescence (D) Childhood
- 205. All of the followings usually occur during adolescence except:**
- (A) A growth spurt (B) Secondary sex characteristics
(C) Puberty (D) The appearance of first permanent teeth
- 206. Eighty to 90% of seminal fluid (semen) is secreted by the combined secretions of:**
- (A) Seminal vesicles and prostate
(B) Seminal vesicles and seminiferous tubules
(C) Seminiferous tubules and epididymis
(D) Bulbourethral glands and prostate
- 207. In the normal male, there are two of each of the following structures except:**
- (A) Testes (B) Seminal vesicles
(C) Prostate (D) Vas deferens
- 208. Which of the followings are produced by the testes?**
- (A) Spermatozoa (B) Testosterone
(C) Inhibin (D) GnRH
- 209. Which of the followings are produced by the ovaries and then leave the ovaries?**
- (A) Follicles (B) Secondary oocyte
(C) Corpus luteum (D) Corpus albicans
- 210. Which of the following are functions of LH?**
- (A) Begin the development of the follicle
(B) Stimulate change of follicle cells into corpus luteum
(C) Stimulate release of secondary oocyte (ovulation)
(D) Stimulate corpus luteum to secrete estrogen and progesterone

211. **Menstruation in the adult female is most directly the result of:**
- (A) Decreased FSH secretion
 - (B) Decreased LH secretion
 - (C) Absence of chorionic gonadotropin
 - (D) Decreased secretion of progesterone and estrogen by corpus luteum
212. **Spermatogenesis involves the development in the seminiferous tubules of mature sperm from:**
- (A) Sustentacular cells
 - (B) Interstitial cells
 - (C) Spermatogonia
 - (D) Granulosa cells
213. **If a female's oocyte is penetrated by a sperm, then:**
- (A) The second meiotic division occurs to produce an ovum
 - (B) The oocyte will be shed through the oviduct, uterus and vagina
 - (C) Conception will be delayed several days
 - (D) Implantation will indefinitely delayed
214. **Each oogonium containing 46 chromosomes produces how many mature fertilizable ova?**
- (A) 400,000
 - (B) 400
 - (C) 4
 - (D) 1
215. **Which of the following statements is false for a sperm?**
- (A) Consists of a head, middle piece and a tail
 - (B) Contains 22 autosomes
 - (C) is solely responsible for the sex of a zygote
 - (D) has a great deal of cytoplasm
216. **The best reason known for the initiation of puberty in female is:**
- (A) Hypothalamus becomes insensitive to feedback inhibition by estrogen
 - (B) Hypothalamus releases FSH-RF to stimulate pituitary gland to release FSH to start menstrual cycles
 - (C) The timing of the first ovulation, or menarche, was pre-set by increased androgen secretion way back in pre-natal development
 - (D) Both (A) and (B) are correct

217. **The average life of human sperm after ejaculation is:**
(A) 24 hours (B) 36 to 48 hours
(C) 6 hours (D) 72 hours
218. **Just before fertilization is about to occur, what the sperm must release to prevent competing sperm from reaching the egg nucleus at the same time?**
(A) Control of the corona radiata from the sperm head
(B) Proteolytic enzymes
(C) Large amounts of hyaluronidase
(D) All of the above
219. **Which one of the following structures is haploid?**
(A) Spermatogonia (B) Primary spermatocytes
(C) Secondary spermatocytes (D) Sertoli cells
220. **After ovulation, the ruptured Graafian follicle:**
(A) Becomes part of the epithelial tissue covering the ovary
(B) Passes into the uterine tube
(C) Forms a more mature follicle
(D) Is repaired and eventually forms corpus luteum
221. **Oogenesis takes place in the:**
(A) Corpus luteum (B) Uterine tube
(C) (A) and (B) are not correct (D) (A) and (B) are correct
222. **Which is true about estrogens?**
(A) Are responsible for growth of the endometrium during early phase of menstruation
(B) They are secreted in large amounts during pregnancy
(C) They decrease in amounts during implantation
(D) Both (A) and (B) are correct
223. **The endometrium:**
(A) is the outermost layer of the ovaries
(B) is repaired after menstruation by progesterone
(C) is made secretory by the action of estrogen
(D) All of the above

224. The best description of when ovulation occurs in the human is:
- (A) Exactly midway between menstrual cycles
 - (B) 14 days after the beginning of menstruation
 - (C) 14 days after the end of menstruation
 - (D) 14 days before the beginning of menstruation
225. Menstrual flow is initiated by a decrease in blood concentration of which two hormones?
- (A) FSH and LH
 - (B) Estrogen and progesterone
 - (C) Progesterone and androgen
 - (D) FSH and estrogen
226. The interstitial cells are found:
- (A) in the seminiferous tubules of the testes
 - (B) between the seminiferous tubules
 - (C) lining the wall of vas deferens
 - (D) within the wall of epididymis
227. Prior to maturation and ejaculation, sperms are stored in the:
- (A) Prostate gland
 - (B) Ejaculatory duct
 - (C) Epididymis
 - (D) Seminal vesicle
- 

Answers

Sr.	Ans.	Sr.	Ans.	Sr.	Ans.	Sr.	Ans.	Sr.	Ans.
1.	(A)	2.	(D)	3.	(D)	4.	(D)	5.	(C)
6.	(A)	7.	(C)	8.	(C)	9.	(B)	10.	(A)
11.	(B)	12.	(D)	13.	(A)	14.	(B)	15.	(C)
16.	(D)	17.	(C)	18.	(B)	19.	(A)	20.	(B)
21.	(C)	22.	(A)	23.	(C)	24.	(C)	25.	(C)
26.	(C)	27.	(C)	28.	(B)	29.	(A)	30.	(C)
31.	(D)	32.	(A)	33.	(B)	34.	(C)	35.	(C)
36.	(A)	37.	(A)	38.	(B)	39.	(D)	40.	(D)
41.	(B)	42.	(D)	43.	(D)	44.	(A)	45.	(A)
46.	(A)	47.	(C)	48.	(C)	49.	(B)	50.	(A)
51.	(A)	52.	(B)	53.	(D)	54.	(A)	55.	(D)
56.	(A)	57.	(B)	58.	(B)	59.	(A)	60.	(B)
61.	(A)	62.	(C)	63.	(A)	64.	(D)	65.	(A)
66.	(B)	67.	(C)	68.	(A)	69.	(D)	70.	(A)
71.	(D)	72.	(D)	73.	(A)	74.	(A)	75.	(B)
76.	(A)	77.	(B)	78.	(D)	79.	(C)	80.	(D)
81.	(C)	82.	(B)	83.	(A)	84.	(B)	85.	(D)
86.	(C)	87.	(C)	88.	(B)	89.	(B)	90.	(C)
91.	(C)	92.	(C)	93.	(D)	94.	(B)	95.	(C)
96.	(B)	97.	(A)	98.	(B)	99.	(C)	100.	(A)
101.	(B)	102.	(B)	103.	(B)	104.	(A)	105.	(A)
106.	(C)	107.	(A)	108.	(C)	109.	(A)	110.	(A)
111.	(C)	112.	(B)	113.	(D)	114.	(D)	115.	(B)
116.	(C)	117.	(B)	118.	(B)	119.	(A)	120.	(C)

Sr.	Ans.	Sr.	Ans.	Sr.	Ans.	Sr.	Ans.	Sr.	Ans.
121.	(B)	122.	(A)	123.	(A)	124.	(B)	125.	(B)
126.	(C)	127.	(A)	128.	(C)	129.	(C)	130.	(A)
131.	(A)	132.	(A)	133.	(D)	134.	(C)	135.	(B)
136.	(B)	137.	(D)	138.	(C)	139.	(B)	140.	(C)
141.	(C)	142.	(B)	143.	(B)	144.	(B)	145.	(D)
146.	(D)	147.	(A)	148.	(C)	149.	(D)	150.	(B)
151.	(C)	152.	(B)	153.	(A)	154.	(A)	155.	(D)
156.	(B)	157.	(C)	158.	(C)	159.	(C)	160.	(C)
161.	(B)	162.	(B)	163.	(A)	164.	(B)	165.	(C)
166.	(B)	167.	(B)	168.	(C)	169.	(C)	170.	(A)
171.	(C)	172.	(A)	173.	(B)	174.	(B)	175.	(B)
176.	(B)	177.	(A)	178.	(B)	179.	(C)	180.	(D)
181.	(B)	182.	(A)	183.	(D)	184.	(C)	185.	(A)
186.	(C)	187.	(C)	188.	(C)	189.	(D)	190.	(B)
191.	(C)	192.	(C)	193.	(D)	194.	(D)	195.	(B)
196.	(D)	197.	(C)	198.	(A)	199.	(D)	200.	(D)
201.	(A)	202.	(D)	203.	(A)	204.	(D)	205.	(D)
206.	(D)	207.	(D)	208.	(B)	209.	(B)	210.	(C)
211.	(D)	212.	(C)	213.	(A)	214.	(D)	215.	(D)
216.	(B)	217.	(D)	218.	(B)	219.	(D)	220.	(D)
221.	(B)	222.	(A)	223.	(B)	224.	(C)	225.	(B)
226.	(B)	227.	(C)						