



BIOLOGY

BOOKS - MODERN PUBLICATION

SEXUAL REPRODUCTION IN FLOWERING PLANT



1. In, pollen tube enters through micropyle into the ovule.

A. porogamy

B. chalazogamy

C. mesogamy

D. herkogamy

Answer: A

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2. True fruit is formed from _____.

A. peduncle

B. ovary

C. thalamus

D. receptacle

Answer: B

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3. Which one of the following has filiform apparatus ?

A. Anther cell

B. Pollen grain

C. synergids

D. Spores

Answer: C

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4. Allogamy is best favoured by :

A. Dichogamy

B. Dicliny

C. Cleistogamy

D. Homogamy

Answer: A



5. Development of an egg without fertilization

is called:

A. parthenocarpy

B. polyembryony

C. parthenogenesis

D. gametogenesis

Answer: C



6. Maturation of male and female sex organ at

different times is known as

A. Herkogamy

B. Dichogamy

C. Polygamy

D. Apogamy

Answer: A



7. Egg apparatus consist of :

A. Egg

B. Egg and polar nuclei

C. Egg and synergids

D. Egg and antipodal cells

Answer: C

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8. Triple fusion involves fusion of :

A. Two male gametes and one egg

B. Two male gametes and a secondary

nucleus

C. Two egg nad one male gametes

D. One male gametes and two polar nuclei

Answer: D

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9. Endosperm of following plants develops from :

A. Haploid nucleus

- B. Diploid nucleus
- C. Triploid nucleus

D. Tetraploid nucleus

Answer: C

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10. In angiosperms, triple fusion produces :

A. Secondary nucleus

B. Polar nuclei

C. Primary endosperm nucleus

D. Haploid nucleus





11. In flowering plants, archesporium gives rise to :

A. Wall of sporangium

B. Both wall and sporogenous cell

C. Tapetum and sporogenous cell

D. Wall and tapetum

Answer: B



12. Pollen grains are able to tolerate extremes of temperature and desiccation because their exine consists of:

A. cutin

B. suberin

C. sporopollenin

D. callose





13. Secondary nucleus present in the middle of embryo sac is :

A. Tetraploid

B. Triploid

C. Diploid

D. Haploid

Answer: B



14. Correct the sentences, if required by changing the underlined word.

Largest cell of ovule is antipodal cell

A. Antipodal cell

B. Megaspore mother cell

C. Central cell

D. None of the above





15. Ovule integument gets transformed into :

A. seed

- B. seed coat
- C. fruit wall
- D. cotyledon

Answer: B



- 16. In nature, cleistogamous flowers are :
 - A. Self-pollinated
 - B. Insect-pollinated
 - C. Wind-pollinated
 - D. Bird-pollinated

Answer: A



17. From which cells of embryo plumule is produced?

A. Proembryo

B. Hypophysis

C. Apical octant

D. Micropylar octant

Answer: C

18. From which cells peripheral region of radical is produced ?

A. Vegetative cell

B. Hypophysis

C. Apical octant

D. Micropylar octant

Answer: B

19. Name the process of embryo sac formation from cell of nucellus, without undergoing meiosis.

A. Polyembryony

B. Incompatibility

C. Parthenocarpy

D. Parthenogenesis

Answer: D

20. Mesogamy is :

A. Fusion of male and female gametes

B. Fusion of physiologically similar and

morphologically different gametes

- C. Entry of pollen tube through integuents
- D. None of the above

Answer: C

21. Nucellus froms which of the following part

of fruit ?

A. Seed coat

B. Perisperm

C. Seed

D. Raphe

Answer: B

22. Number or chormosome in an angiospermic plant is 14, then the number of chromosome in synergid cells will be :

A. 14

B. 7

C. 18

D. 21

Answer: B



23. Double fertilization is the process in the

plants that includes

A. Syngamy and triple fusion

B. Only triple fusion

C. Devlopment of antipodal cells

D. None of the above

Answer: A

24. Unisexuality of flowers prevents :

A. Geitonogamy, but not xenogamy

B. Autogay and geitonogamy

C. Autogamy, but not geitonogamy

D. Both geitonogamy and xenogamy

Answer: C

25. Which of the following shows triploid nature in flowering plants ?

A. Megaspore

B. Microspore

C. Embryo

D. Endosperm

Answer: D

26. Which one of the following is not a device

to promote cross-pollination ?

A. Cleistogamy

B. Heterostyly

C. Herkogamy

D. Dichogamy

Answer: A

27. Ornithophily refers to the pollination by

which of the following ?

A. Insects

B. Birds

C. Snails

D. Air

Answer: C

28. The water of green coconut is :

A. Liquid endosperm

B. seed

C. Mesocarp

D. Endocarp

Answer: A

29. The hilum and micropyle lie side by side

very close to each other in :

A. Anatropous ovule

B. Campylotropous ovule

C. Amphitropous ovule

D. Circinotropous ovule

Answer: A

30. Embryo axis above the cotyledon is celled

as :

A. Epicotyl

B. Hypocotyl

C. Funicle

D. Raphe

Answer: A

31. Fusion of male gamete with polar nuclei of

embryo sac is known as :

A. Double fertilization

B. Embryogeny

C. Pollination

D. Triple fusion

Answer: A

32. Vegetative fertilisation is also called :

A. Triple fusion

B. True firtilization

C. Syngamy

D. Generative fertilization

Answer: A

33. The residual persistent nucellus is known

as :

A. Perisperm

B. Pericarp

C. Integument

D. None of the above

Answer: A

34. The female gametophyte in angiosperm is

A. Carpel

B. Ovule

C. Embryo sac

D. Egg

Answer: C

35. The egg apparatus of angiosperm comprises :

A. An egg cell and two antipodals

B. An egg cell and two synergids

C. An egg cell and two polar nuclei

D. An egg cell and the central cell

Answer: B

36. The type of pollination involving transfer of

pollen grains from anther to the stigma of

same flower is known as :

A. Geitonogamy

B. Xenogamy

C. Autogamy

D. Apogamy

Answer: C

37. Transfer of pollen grains from one flower to

another flower of the same plant is called :

A. Xenogamy

B. Geitonogamy

C. Autogamy

D. Allogamy

Answer: B

38. Ovule integument gets transformed into :

A. Seed

B. Fruit wall

C. Seed coat

D. cotyledons

Answer: C

39. What would be the number of chromosomes of the aleurone cells of a plant with 42 chromosomes in its root tip cells ?

A. 42

B. 63

C. 84

D. 21

Answer: B



40. Which one of the following pollination autogamous ?

A. Geitonogamy

B. Xenogamy

C. Chasmogamy

D. Cleistogamy

Answer: D

41. In angiosperms, functional megaspore

develops into :

A. Embryo sac

B. Ovule

C. Endosperm

D. Pollen sac

Answer: A

42. The presence of filiform apparatus is the

characteristic feature of

A. Suspensor

B. Egg

C. Synergids

D. Zygote

Answer: C

43. Wind pollination is common in :

A. Legumes

B. Lilies

C. Grasses

D. Orchids

Answer: C



44. What is common between vegetative reproduction and apomixis ?

A. Both are applicable to only dicot plants

B. Both bypass the flowering phase

C. Both occur round the year

D. Both produce progeny identical to the

parent

Answer: D

45. The formation of pericarp takes place from

A. Ovary wall

:

B. Outer integument

C. Inner integument

D. Plancenta

Answer: A

46. Find out the odd one.

A. Embryo sac

B. Micropyle

C. Nucellus

D. Pollen grain

Answer: D



47. Ovule is attached to placenta of ovary wall

by:

A. Funicle

B. Hilum

C. Raphe

D. Chalaza

Answer: A

48. Entry of the pollen tube with two male gametes and tube nucleus through micropyle is called :

A. Mesogamy

B. Porogamy

C. Chalazogamy

D. Autogamy

Answer: B

49. Apomixis on plant means, development of a plant :

A. By fusion of gametes

B. Without fusion of gametes

C. From stem cutting

D. From root cutting

Answer: B

50. Development of embryo sac from any cell

of nucellus is called :

A. Apogamy

B. Apospory

C. Parthenogenesis

D. Sporogenesis

Answer: B

51. The major application of embryo culture is

in :

A. Production of alkaloids

B. Clonal propagation

C. Overcoming hybridization barriers

D. Induction of some clonal variation

Answer: C

52. Apomixis is a type of reproduction that results in the development of a/an :

A. New organism without fusion og

gametes

Β.

C. New organism from fusion products of

gametes

D. Embryo from endosperm







53. Perisperm in angiospermic seeds is derived

from :

- A. Nucellus
- B. Endosperm
- C. Integument
- D. Antipodals

Answer: A

54. In ovule meiosis occurs in :

A. Megaspore

B. Megaspore mother cell

C. Endosperm

D. Sporogonium

Answer: B

55. The fusion product of polar nuclei and male gamete is :

A. Secondary nucleus

B. Triple fusion

C. Primary endosperm nucleus

D. Zygote

Answer: C

56. The secondary nucleus after fusing with

one of the two male gametes develops into :

A. Endosperm

B. Embryo

C. Seed

D. Fruit

Answer: A

57. If an endosperm cell of an angiosperm contains 24 chromosomes, the number of chromosomes in each cell of root will be :

A. 8

B. 4

C. 16

D. 24

Answer: C



58. Ovule is attached to placenta by a slender

stalk called :

A. Pedicel

B. Petiole

C. Plancenta

D. Funicle

Answer: C

59. In angiosperms, embryo sac represents :

A. Female gametophyte

B. Sporophyte

C. Male gametophyte

D. None of the above

Answer: A

60. When micropyle, chalaza and hilum lie in

straight line, the ovule is said to be :

A. Anatropous

B. Orthotropous

C. Amphitropous

D. Campylotropous

Answer: B

61. In angiosperms, free nuclear division occurs

during :

A. Gamete formation

B. Endosperm formation

C. Embryo sac formation

D. Both (b) and (c)

Answer: D

62. Tapetum layer around pollen sacs is meant

for :

A. Dehiscence

B. Protection

C. Nutrition

D. None of the above

Answer: C

63. In fully developed male gametophyte,

number of nuclei is :

A. One

B. Two

C. Three

D. Four

Answer: C

64. In a fertilized ovule, n, 2n and 3n conditions occur respectively in :

A. Antipodal, zygote and endosperm

B. Egg, nucellus and endosperm

C. Endosperm, nucellus and egg

D. Antipodals, synergids and egg

Answer: A

65. Porogamy is entry for pollen tube through

A. Chalaza

:

B. Funicle

C. Micropyle

D. Integuments

Answer: C

66. Milky water of green cocount is :

A. Liquid chalaza

B. Liquid endosperm

C. Liquid nucellus

D. Liquid feale gametophyte

Answer: B

67. Synergide are :

A. Hexaploid

B. Haploiod

C. Diploid

D. Triploide

Answer: B

68. In anther meiosis occurs in :

A. Tapetal cells

B. Endothelial cells

C. Pollen mother cells

D. Stomium cells

Answer: C

69. Fusion of egg with male gamete is called :

A. Syngamy

B. Apogamy

C. Autogamy

D. None of the above

Answer: A

70. Albuminous seeds store their food in ____

A. Cotyledons

B. Endosperm

C. Testa

D. Plumule

Answer: B

71. Development of fruit without fertilization is

called:

A. Parthenogenesis

B. Parthenocarpy

C. Apomixis

D. Apogamy

Answer: B

72. Egg apparatus consist of :

A. Egg

- B. Egg and polar nuclei
- C. Egg and synergids
- D. Egg and antipodal cells

Answer: C



73. Germ pore is the region where the exine is

A. Thin

:

B. Uniform

C. Thick and uniform

D. Absent

Answer: A

74. Double fertilization in angiosperms was

discovered by:

A. Strasburger

B. J.C. Bose

C. Maheswari

D. Nawaschin

Answer: D

75. Maturation of male and female sex organ

at different times is known as

A. Herkogamy

B. Dichogamy

C. Polygamy

D. Apogamy

Answer: B

76. Allogamy is best favoured by :

A. Dichogamy

B. Dicliny

C. Cleistogamy

D. Homogamy

Answer: A

77. In an angiosperm, male plant is diploid and

female plant tetraploid, endosperm will be :

A. Haploid

B. Triploid

C. Tetraploid

D. Pentaploid

Answer: D

78. Embryo sac is :

A. Microgametophyte

B. Megagametophyte

C. Microsporangium

D. Megasporangium

Answer: B

79. The root cell of wheat plant has 42 chromosomes. What would be the number of chromosomes in the synergid cell ?

A. 7

B. 14

C. 21

D. 28

Answer: C



80. Anemophilous flowers have :

A. Sessile stigma

B. Small smooth stigma

C. Coloured flower

D. Large feathery stigma

Answer: D

81. Which among the following are pollinated

by bat ?

A. Saliva

B. Ophrys

C. Kigellia

D. Brassica

Answer: C

82. Double fertilization in angiospermic plants

means :

A. Fusion of two egg cells with two male gametes

- B. Fusion of egg cell twice with male gametes
- C. Fusion of one male gamete with the egg

cell and the other male gamete with the

synergid

D. Fusion of one male gamete with the egg

cell and the other male gamete with the

secondary nucleus.

Answer: D

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83. Entry of pollen tube through the chalazal end is called

A. porogamy

- B. Mesogamy
- C. Basigamy
- D. Syngamy

Answer: C

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84. Anemophily is pollination affected by :

A. Water current

B. Birds

C. Wind

D. Insect

Answer: C



85. Triple fusion in angiosperms is the fusion

of second sperm with :

A. One antipodal cell and one synergid cell

B. Two antipodal cell

C. Two synergid cell

D. Two polar nuclei

Answer: D



86. Total number of nuclei involved in double

fertilization in angiosperms are :

A. Two

B. Four

C. Five

D. Six

Answer: C



87. Pollen grains can be stored for several years in liquid nitrogen having a temperature of :

A. -120°

 $\mathrm{B.}-80^{\,\circ}$

 $\mathrm{C.}-196^{\,\circ}$

D. -160°

Answer: C

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88. Name the process of formation of microspore from pollen mother cells.

A. Microsporogenesis

C.

D.

Answer:

Watch Video Solution

89. Name the outer hard covering of pollen

grains made up of sporopollenin.

A. Exine

C.

D.

Answer:

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90. What term is used for inner wall of the

pollen grain?

A. Intine

C.

D.

Answer:

Watch Video Solution

91. Name the plant in which the pollen grains

are not covered by exine.

A. Zosteramortina

C.

D.

Answer:

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92. What is the shield shaped single cotyledon

of monocut called ?

A. Scutellum

C.

D.

Answer:

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93. Which part of ovule forms perisperm ?

A. Nucellus

C.

D.

Answer:



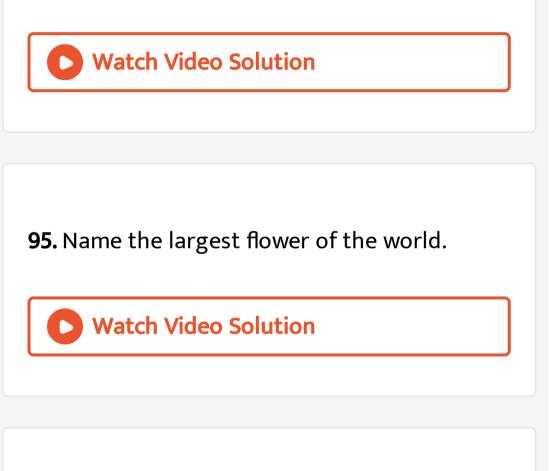
94. Name the smallest flower of the world.

A. Wolffia

Β.

D.

Answer:



96. Which part of flower serves as landing platform of pollen grain?



97. Which term is used for basal bulging part

of the pistil ?

A. Ovary

Β.

C.

D.

Answer:





98. What term is used for pollination achieved

within same flower?



99. What term is applied for transfer of pollen

grains from anther to stigma of flower, different plant.

100. What is the special mechanism to produce seed without fertilization ?
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101. Occurrance of more than one embryo in a

seed.



102. True fruit is formed from _____.

A. True fruit

Β.

C.

D.

Answer:



103. The inactivity state of an embryo.

A. Dormancy

C.

D.

Answer:

Watch Video Solution

104. Name the structure that covers the root

tip.

A. Root cap

C.

D.

Answer:

Watch Video Solution

105. The embryonal axis below the level of

cotyledons is called_____

A. Epicotyl

C.

D.

Answer:

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106. Fill in the blank: The part of embryonal axis above the level of cotyledons is called

A. Hypocotyl

Β.

C.

D.

Answer:

Watch Video Solution

107. What term is applied for fusion of male

and female gametes ?

A. Syngamy

Β.

C.

D.

Answer:

Watch Video Solution

108. What term is used for male sex organ of a

flower?

A. Androecium

Β.

C.

D.

Answer:

Watch Video Solution

109. What term is used for female sex organ of

a flower ?

A. Gynoecium

Β.

C.

D.

Answer:

Watch Video Solution

110. Transfer of pollen grains from anther to

stigma of the same flower.

A. Autogamy

Β.

C.

D.

Answer:

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111. Pollination by wind.

A. Anemophily

C.

D.

Answer:

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112. Pollination by water.

A. Hydrophily

D.

Answer:



113. When and roecium and gynoecium mature

at differenyt time.

A. Dichogamy

Β.

D.

Answer:



114. When androecium mature earlier than pollen grain.

A. Protoandry

Β.

D.

Answer:



115. When gynoecium mature earlier than anther.

A. Protogyny

D.

Answer:



116. What term is used for formation of microspores?

A. Microsporogenesis

D.

Answer:



117. Occurrance of more than one embryo in a

seed.

A. Polyembryony

D.

Answer:



118. An example of a seed with endosperm

perisperm and caruncle is

A. Albuminous

D.

Answer:



119. The entry of pollen tube through the

micropyle is

A. porogamy

Β.

D.

Answer:



120. Express in one word only

Flowers that never open.

A. Cleistogamy

D.

Answer:



121. Express in one word only

Ovule is otherwise called as.

A. Megasporangium

Β.

D.

Answer:



122. Express in one word only

Ovary is otherwise called as.

A. Megasporophyll

D.

Answer:



123. Pollination by insects.



124. The pollination by bats is known as ____



125. Deposition of pollen grain on the stigma of another flower of the same inflorescence or

on the same plant is called _____.

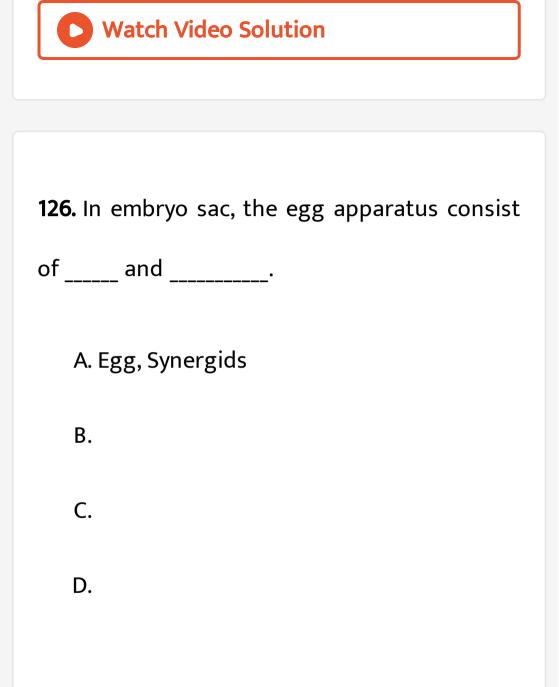
A. Geitonogamy

Β.

C.

D.









127. Pollen kit is present in the pollens of _____

flower.

A. Entomophilous

Β.

C.

D.



128. The tapetum of microsporoangium is the

innermost _____ layer.

A. Parietal

Β.

C.

D.

Answer:

129. Double fertilization take place only on

A. Angiosperms

Β.

C.

D.

Answer:

130. The nature of endosperm in angiosperm

is _____.

A. Nutritive

Β.

C.

D.



131. When pollen tube enters the ovule through chalaza, the condition is known as

A. Chalazogamy

Β.

C.

D.



132. The phenomenon of double fertilization

was first observed by _____.

A. S.G. Nawaschin

Β.

C.

D.

Answer:

133. The seed dormancy in tomato is caused

due to the presence of _____.

A. Ferulic acid

Β.

C.

D.



134. Ovule is attached to placenta by a slender

stalk called :

A. Funiculus

Β.

C.

D.

Answer:

135. Banana are seedless because they develop

by _____.

A. Parthenocarpy

Β.

C.

D.



136. The famous plant embryologist in India

was _____.

A. P. Maheshwari

Β.

C.

D.

Answer:

137. Free nuclear division in angiosperms takes

place during the formation of _____.

A. Endosperm

Β.

C.

D.



138. The tissue in anther which produces

enzyme and harmone is _____.

A. Tapetum

Β.

C.

D.

Answer:

139. Germination of seeds within the fruits

take place in ____ plants.

A. Viviparous

Β.

C.

D.



140. Pollination by the agency of animals is

called _____.

A. Zoophily

Β.

C.

D.

Answer:

141. Pollination by water.

A. Hydrophily

Β.

C.

D.



142. Pollen tube is ____ in nature as it absorbs

nutrients from the style.

A. Parasitic

Β.

C.

D.

Answer:

143. Albuminous seeds store their food in ____

A. Endosperm

Β.

C.

D.



144. Production of seed without meiosis and

syngamy is termed as

(apomixis, parthenocarpy, parthenogenesis)

A. Apogamy

Β.

C.

D.



145. Anemophilly is pollination by _____.

A. Air

Β.

C.

D.

Answer:

146. A flower without stamens is called as

A. Pistillate

Β.

C.

D.

Answer:

147. Study of pollen grain is called:

A. Pallinology

Β.

C.

D.



148. The exine of the pollen grain is composed

of _____.

A. Sporopollenin

Β.

C.

D.

Answer:

149. Express in one word only

Yellowish viscous sticky susbtance exuded

from pollen grains.

A. Pollen kit

Β.

C.

D.



150. Pollen kit is secreted by _____ cells.

A. Tapetal

Β.

C.

D.

Answer:



151. Pollination takes place by insect is _____ .

A. Entomophily

Β.

C.

D.

Answer:

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152. Pollination by wind.

A. Anemophily

Β.

C.

D.

Answer:

Watch Video Solution

153. Express in one word only

Fertilized or mature ovary.

A. Fruit

Β.

C.

D.

Answer:

Watch Video Solution

154. The wall of the fruit is called _____.

A. Pericap

C.

D.

Answer:



155. Seed without endosperm is called _____.

A. Exalbuminous

Β.

Answer:

Watch Video Solution

156. Development of fruit without fertilization is called:

A. Parthenocarpy

Β.

D.

Answer:

Watch Video Solution

157. Formation of mature embryo is called

A. Embryogenesis

Β.

D.

Answer:

Watch Video Solution

158. Finger like structures present in synergids

are known as _____.

159. The process of fusion of one male gamete with the haploid egg to form a zygote is known as _____.

A. Syngamy/ True fertilization/ Amphimixis

Β.

C.

D.



160. _____ is the central part of ovule made up

of diploid mass of tissue.

A. Nucellus

Β.

C.

D.

Answer:

161. _____ consist of one pair of synergids

and one large egg in micropylar end.

A. Egg apparatus

Β.

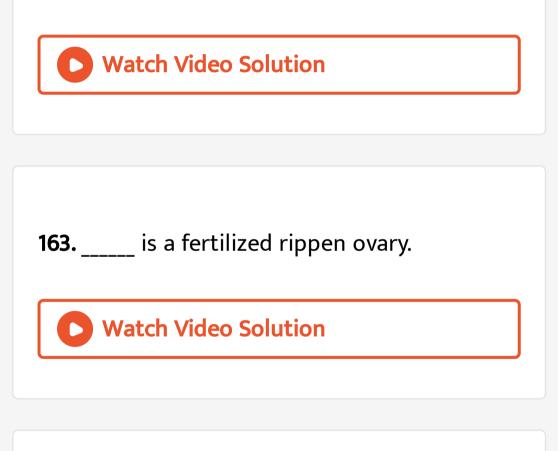
C.

D.





between nuclear and cellular types.



164. _____ is the asexual production of seeds or embryos without fertilization or meiosis.

A. Apospory

Β.

C.

D.

Answer:

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165. Pollination by snail is called _____.

166. _____ is the occurrance of two or more type of flowers having different length of styles and stamens.

A. Heterostyles

Β.

C.

D.



167. The development of sporophyte from gametophytic tissue without fusion of gametes is

A. Apogamy

Β.

C.

D.



168. The phenomenon of the formation of gametophyte directly from sporophyte without meiosis is

A. Apospory

Β.

C.

D.





169. Vallisneria and Hydrilla are wind

pollinating plants.



170. Transfer of pollen grains from the anther

to the stigma of another flower of same plant

is called Xenogamy.

171. Chasmogamous flower do not open at all.



172. Hybridization is the removal of anther

from a bisexual flower.

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173. Zygote is a haploid cell.

174. Fusion of 3 haploid nucleis is called pollination.

A. Triple fusion

Β.

C.

D.



175. The zygote develops into endosperm.

A. Embryo

Β.

C.

D.

Answer:

176. In the grass family the cotylendon is called plumule.

A. Scutellum

Β.

C.

D.

Answer:

177. Correct the statement if required by changing of underlined words only.Development of fruit without fertilization is

called olygamy.

A. Parthenocarpic

Β.

C.

D.



178. Correct the statement if required.

The innermost layer of microsporangia.

A. Tapetum

Β.

C.

D.

Answer:

179. Ubisch bodies are present epidermal cells.

A. Tapetal cells

Β.

C.

D.

Answer:

180. Tapetum is the 2nd layer of microsporangium.

A. Endothecium

Β.

C.

D.

Answer:

microspore is called Megasporogenesis.

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182. When carpels are free called as hydrophily.

A. Apocarpous

Β.

C.





183. Each ovule attaches to the plecenta by a slender stalk is called hilum.

A. Funicle

Β.

C.





184. Pollination by animals is called hydrophily.

A. Zoophily

Β.

C.





185. Correct the statement if required by changing of underlined words only. Seeds are fertilized ovaries.

A. Ovule

Β.

C.





is called fertilization.

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187. A small opening is left at integument of ovule is called as chalaza.

A. Micropyle

Β.

C.

D.

Answer:

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188. Phenomenon of formation of more than

one embryo per ovule is called mesogamy.

189. Callus is a proteinous layer present on the

outer surface of seeds of maize etc.

A. Aleurone layer

Β.

C.

D.

Answer:

190. Tapetum is the covery sheath of plumule

in monocots.

A. Coleoptile

Β.

C.

D.



191. Coleoptile is the protective sheath of radicle in monocots.(TRUE/FALSE)

A. Colobrhiza

Β.

C.

D.

Answer:

192. Process of carrying male gametes in the vicinity of female gamete by pollen tube is called polyembryony.

A. Siphonogamy

Β.

C.

D.

Answer:

193. Tapetum layer around pollen sacs is meant for :

A. Tapetum

Β.

C.

D.

Answer: