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## BIOLOGY

## BOOKS - S DINESH \& CO BIOLOGY

## (HINGLISH)

## NO IDEA

Mcq

1. Which is agamospermy
A. Development of embryo without gametic
union
B. A type of sexual reproduction in which
there is no differenticaion of male and
female gametes.
C. Development of new individual from the
union of two sperms
D. Development of new individual directly
without forming an embryo.
2. Adventitive polyembryony/from nucellar cells occurs in
A. Poa
B. Brassica
C. Allium
D. Citrus.

Answer: D
3. Asexual reproduction is related to
A. Amphimixis
B. Agamospermy
C. Vegetative propagation
D. Both B and C

Answer: D
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## 4. Agamospermy includes

A. Adventitive polyembryony
B. Recurrent apomixis
C. Nonrecurrent apomixis

D. All the above

## Answer: D

## D Watch Video Solution

5. Agamospermy produces new plant through
the formation of
A. Bulbil
B. Asexual embryo
C. Gemma
D. Parthenocarpy

Answer: B
(D) Watch Video Solution
6. In nonrecurrent agamospermy the embryo

A. Nucellar

B. Integumental
C. Haploid
D. Diploid

Answer: C

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## 7. Apospory is direct formation of

A. Gametophyte from sporophyte
B. Gametophyte from Gametophyte
C. Sporophyte from gametophyte
D. Sporophyte

Answer: A

# 8. Diplospory is development of embryo from 

A. Nucellus
B. Integument
C. Megaspore mother cell

D. Megaspore

## Answer: C

# 9. Union of two gametes of one sex is known 

as
A. Apogamy
B. Parthenoapogamy
C. Parthenogamy
D. Parthenogenesis.

Answer: C
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10. Apogamy is direct formation of
A. Sporophyte from sporophyte
B. Sporophyte from gametophyte
C. Gametophyte from sporophyte
D. Gametophyte from gametophyte

Answer: B

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11. Parthenoapogamy involves
A. Fusion of two gametic nuclei
B. Fusion of three gametes
C. Fusion of two vegetative nuclei
D. Development of new plant from a single gametophytic cell.

## Answer: C

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12. Adventive polyembryony is an example of
A. Vegatative propagation
B. Amphimixis
C. Agamospermy
D. Parthenogamy.

## Answer: C

## D Watch Video Solution

13. Diplospory is direct (nonmeiotic) development of diploid embryo sac from
A. Diploid megaspore mother cell
B. Diploid integument call
C. Diploid nucellar cell
D. All the above

Answer: A

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14. Which is agamospermy
A. Layering

## B. Grafting

C. Adventivitive embroyony
D. All the above

## Answer: C

## D Watch Video Solution

15. The phenomenon of embryo directly developing form a cell of embryo sac other then egg is
A. Apospory
B. Diplosory
C. Apogamy
D. Parthenogenesis.

## Answer: C

## D Watch Video Solution

16. Pollination is
A. Shedding of pollen from anthers
B. Similar to fertillization of animals
C. Transfers of pollen from anthers to
stigmas
D. Transfers of pollen from anthers to ovules.

Answer: C
(D) Watch Video Solution
17. Self pollination is transfer of pollen form anther to the stigma of
A. same flower
B. Same or different flower of the same
plant
C. same or gentically similar flower of the
same or other plant
D. Different flowers of the same plant.

Answer: C
18. The condition of maturation of anthers and
stigmas of the same flower simultaneously is
A. Xenogamy
B. Geitonogamy
C. Allogamy
D. Homogamy.

Answer: D
19. Passage of pollen grains fromanthers of one flowers to stigmas of other flowers is
A. Allogamy
B. Chasmogamy
C. Xenogamy
D. Geitonogamy

Answer: A

## 20. Xenogamy is

A. Autogamy
B. Cross Pollination
C. Self pollination
D. Cleistogamy

Answer: B

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## 21. Pollination occurring in closed flowers is

## D Watch Video Solution

22. In Wheat, pollination is
A. Wind pollination
B. Insect pollination
C. Bud pollination
D. Herkogamy.

## D Watch Video Solution

23. A mechanism to prevent cross pollination is
A. Protogyny
B. Protandry
C. Heterostyly
D. Cleistogamy.

## Answer: D

## D Watch Video Solution

24. Repeated self pollination over the generations produces
A. New varieties
B. Elimination of weak traits
C. Better progeny
D. Weak progeny.

## Answer: D

## - Watch Video Solution

25. Transfer of pollen from anthers of one
flower to the stigma of another flower of the
same plant is
A. Geitonogamy
B. Xenogamy
C. Dichogamy
D. Dicliny.

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26. Cleistogamous flowers are
A. Wind pollinated
B. Self pollinated
C. Cross pollinated
D. Insect pollinated.

# 27. Chasmogamy is pollination in 

A. Bud condition
B. Closed flowers
C. Open flowers
D. Unrelated flowers.

## Answer: C

28. During self pollination of Mirabilis
A. Flowers are closed
B. Flowers are open and growing style brings the stigma in contactt with anthers
C. Filaments brings anthers in contact with
stigma
D. Style bends to brings stigma in contact with anthers.

## D Watch Video Solution

29. In Potato, self pollination is performed in
A. Bud condition
B. Cleistogamous condition
C. Bending of filaments to bring anthers in
contact with stigma

# D. Style bends to brings stigma in contact 

## with anthers.

## Answer: D

## D Watch Video Solution

30. In Catharanthus (= Vinca) anthers occur near the mouth of corolla tube. Self pollination is performed by
A. Growth of style
B. Bending of filaments
C. Shedding of pollen and falling on the low lying stigma
D. Entry of insect.

Answer: A

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31. A characteristic of wind pollinated flowers
is
A. Feathery exserted stigma
B. Feathery inserted stigma
C. Narrow exserted stigma
D. Narrow inserted stigma.

Answer: A

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## 32. Wind pollinated flowers have

A. Small petals and sticky pollen
B. No petals and light pollen
C. Coloured and large petals with large pollen
D. small petals and heavy pollen.

## Answer: B

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33. Maize is

A. Cleistogamous

## B. Anemophilous

C. Entomophilous
D. Hydrophilous.

Answer: B

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34. Exserted versatile anthers are found in
A. Autogamous flowers
B. Entomophilous flowers

## C. Anemophilous flowers

## D. Zoophilous flowers.

## Answer: C

## D Watch Video Solution

35. Hay fever in due to
A. Insect transmitted pollen
B. Water borne pollen and pathogens
C. Wind borne pollen

## D. Virus infected pollen.

## Answer: C

## D Watch Video Solution

36. A tree like Willow or Mulberry has hanging male catkins, Pollination can be through
A. Geitonogamy
B. Entomophily
C. Zoophily

## D. Anemophily.

## Answer: D

## D Watch Video Solution

37. Pollen of anemophilous plants are
A. Large and heavy
B. Small and sticky
C. Small, dry and unwettable
D. Large, light and hygroscopic.

## D Watch Video Solution

38. Pollination carried out through water is
A. Anemochory
B. Hydrophily
C. Hydrochory
D. Anemophily.

Answer: B
39. Pollination by water occurs in
A. Ceratophyllum
B. Zostera
C. Lemna
D. All the above.

## Answer: D

40. In Vallisneria, pollination is
A. Hydrophilous
B. Cleistogamous
C. Anemophilous
D. Entomophilous.

Answer: A

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41. Pollination in Vallisneria is

A. Epihydrophilous

B. Hypohydrophilous

C. Subhydrophilous
D. Both B and C

Answer: A
42. Plant of Vallisneria is
A. Monoecious
B. Dioecious
C. Polygamous
D. intersexual.

Answer: B
43. IN Tape Grass (= Vallisneria )
A. Both male and female flowers break from
the plant and float on the surface of water
B. Only the female flowers break from the
plant while the male flowers are brought
to the surface by long stalks
C. only the male flowes break from the
plant and rise to the surface while the
female flowers are brought to the
surface by long pedicels
D. Any of the two types of flowers can break.

## Answer: C

## - Watch Video Solution

44. The male flowers of Vallisneria float on the surface of water with the help of
A. Boat - like structure formed by two
perianth lobes
B. Boat - like structure formed by three
perianth lobes
C. Boat formed by monotepalous perianth
D. Two tepals forming boat - shaped float
while the third smaller one functions as
a rudder.

## Answer: D

# 45. Colour of night blooming flowers is usually 

A. Violet to purple
B. Red
C. Yellow
D. Whitish.

Answer: D
( Watch Video Solution
46. Night blooming flowers attract pollinating insects with the help of
A. Aroma
B. Nectar
C. Edible pollen
D. All the above.

Answer: A

- Watch Video Solution

47. Rose flower does not contain nectar. It provides the visiting insect with
A. Mineral rich water
B. shelter
C. Edible pollen
D. Edible petals.

Answer: C

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48. Brightly coloured scented flowers generally show
A. Entomophliy

B. Malacophily

C. Myrmecophily
D. Chiropterophily.

Answer: A

D Watch Video Solution

# 49. Charactersitc of entomophilous plants is 

A. long styles
B. exserted stamens
C. long stigma
D. Pollenkitt.

Answer: D
50. Mimicry like condition is helpful in the pollination of
A. Blastophaga
B. Ophrys
C. Yucca
D. Magnolia.

Answer: B

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51. Moth Pronuba (=Tegaticula ) passes its
larval stage in plant pollinated by it. The plant is
A. Ficus cairica
B. Yucca
C. Tagetes
D. Cosmos.

Answer: B

## 52. Hovering birds pollinate

A. Bignonia
B. Peepal
C. Magnolia
D. Bougainvillea.

## Answer: A

## D Watch Video Solution

53. Which of the following is ornithophilous
A. Erythrina
B. Agave
C. Grevillea
D. All the above.

Answer: D

D Watch Video Solution
54. Adansonia (Boabab Tree) is
A. Malacophilous

## B. Ornithophilous

C. Chiropterophilous
D. Anemophilous.

## Answer: C

## D Watch Video Solution

55. Pollination with the help of snails is called
A. Myrmecophily
B. Malacophily
C. Lepidopterophily
D. Entomophily.

Answer: B

- Watch Video Solution

56. Faster and batter growth of pollen from other plants then the pollen from the same plant is
A. Self incompatibility

## B. Dichogamy

C. Monocliny
D. Prepotency.

## Answer: D

## D Watch Video Solution

57. Lever or turn - pipe mechanism of pollination occurs in
A. Solvia

# B. Antirrhinum 

## C. Phlox

D. Gloriosa.

Answer: A

- Watch Video Solution

58. Translator is employed for pollination in
A. Erythrina
B. calotropis

## C. Jasminum

D. Cestrum.

Answer: B

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59. In Primula, cross pollination is favoured by
A. Herkogamy
B. Dichogamy
C. Heterostyly

D. Dicliny.

## Answer: C

## D Watch Video Solution

60. In pin - eyed flowers of Primula
A. Stamens are long
B. Style is long
C. There are two series of long staments
and one short style

# D. There are two series of long styles and 

 one short stamens.Answer: B

## D Watch Video Solution

61. Cross pollination produces
A. Similar offspring
B. Weaker progeny
C. Better progeny
D. Male progeny.

## Answer: C

## D Watch Video Solution

62. Allogamy is favoured by
A. Homogamy
B. Cleistogamy
C. Monocliny
D. Dicliny.

## Answer: D

## D Watch Video Solution

63. Pollination performed by bate is
A. Myrmecophily
B. Entomophliy
C. Ornithophily
D. Chiropterophily.
64. In Salvia, pollination occurs through the agency of
A. insects
B. bats
C. Ants
D. Snails.

Answer: A
65. Yacca is pollinated by
A. Pronuba Moth
B. Bumble Bee
C. Honey Bee
D. Butterfly.

Answer: A

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66. The condition of maturation of stigma before anthers of the same flower is
A. Protandry
B. Herkogamy
C. Protogyny
D. Prepotency.

Answer: C

D Watch Video Solution
67. The phenomenon of maturation of anthers

## earlier then the stigma of the same flower is

A. Dicilny
B. Protandry
C. Herkogamy
D. Heterostyly.

## Answer: B

## - Watch Video Solution

68. Pollen grains insect pollinated flowers are
A. Smooth and sticky
B. Smooth and rough
C. Rough and dry
D. Rough and sticky.

## Answer: D

69. The phenomenon of floral parts acting as a barrier to self pollination is
A. Heterostyly
B. Dichogamy
C. Dicliny
D. Herkogamy.

Answer: D
( Watch Video Solution
70. Name the phenomenon of two flowers, one
having long stamens and short styles, and other having short stamens and long style
A. Allogamous device
B. Heterostyly
C. Dicliny
D. Herkogamy.

## Answer: B

71. Pollen grains do not germinate on the stigma of the same flower. The Phenomenon is
A. Prepotency
B. Self sterility
C. Dicliny
D. Dichogamy.

Answer: B
( Watch Video Solution

## 72. Entomophily is pollination by

A. Insects
B. Bats
C. Birds
D. Ants.

Answer: A

## 73. Pollination mechanism of Calotropis is

A. Lever mechanism
B. Turn- pipe mechanism
C. Translator mechanism
D. Siphon mechanism.

Answer: C
74. Barrier to avoid self pollination between
stamens and pistils is
A. Heterostyly
B. Herkogamy
C. Dichogamy
D. Dicliny.

Answer: B

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## 75. Pollinia are sacs having

A. Anther lobes
B. Pollen grains
C. Glands for secreting pollenkitt.
D. Air for making the pollen grains light.

Answer: B
( Watch Video Solution
76. Embryology is
A. Development of embryo only
B. Mode of gametophyte formation
C. Sporogenesis and fertilization

D. Sporogensis,<br>embryogenesis.

fertilization
and

## Answer: D

## D Watch Video Solution

77. Embryogeny is branchof embryology dealing with
A. Nutrition of embryo
B. Development of embryo
C. Formation of embryo
D. Conversion of embryo to adult plant

Answer: B
(D) Watch Video Solution
78. Who is author of book "Inroduction to the

Embryology" of Angiosperms
A. P. Maheshwari
B. S.R Kashyap
C. T.S. Sadasivan
D. K.C. Mehta.

Answer: A

D Watch Video Solution

## 79. In embryophystes, sporogensis involves

A. Microsporogenesis and megasporo-
genesis
B. Formation of diploid spores
C. Formation of haploid spores
D. Formation of mitospores.

## Answer: C

D Watch Video Solution

## 80. Microsoporogenesis occurs

A. On inrolled margins of leaves
B. inside ovule
C. inside anther
D. in essential floral organs.

## Answer: C

- Watch Video Solution

81. Development of microsporangia in anther
is from a
A. A single cell-eusporangiate
B. A single cell-leptosporangiate
C. Group of hypodermal cell-
leptosporangiate
D. Group of hypodermal cells-
eusporangiate.

Answer: D
82. Anther is generally
A. Tetrasporangiate
B. Bisporangiate
C. Trisporangiate
D. Monosporangiate.

## Answer: A

83. Microsporangial initial of an anther is

A. Tapetum

B. Archesporium

C. Endosporium

D. Exosporium

Answer: B
84. Primary parietal cells of a young pollen sac

## form

A. Sporocytes
B. Epidermis
C. Microsporangial wall inner to epidermis
D. Microsporangial wall including the
epidermis.

Answer: C

## 85. Wall of a pollen sac consists of

A. Endothecium and tapetum
B. tapetum and middle layers
C. Endothecium, middle layers and tapetum
D. Epidermis, endothecium, middle layers
and tapetum.

## Answer: C

86. Which one of the following is fibrous layer
A. Middle layer
B. Endothecium
C. Tapetum
D. Endostomium.

Answer: B

## 87. In the anther, stomium occurs

A. At the tip
B. In groove of each anther lobe
C. At the base of anther

D. Transversely on the anther.

Answer: B

## 88. Endothecium takes part in

A. Dehiscence of anther
B. Nourishment of microspore mother cells
C. Nourishment of pollen grains
D. Synthesis of pollen grain wall.

Answer: A
89. Middle layers of the microsporangial wall
A. Shrivel at maturity of anther
B. Persist but remain thin-walled
C. Degenerate before maturity
D. Persist and become thickened.

## Answer: C

90. Tapetum present in the microsporangial wall occurs between
A. Epidermis and endothecium
B. Indothecium and middle layers
C. Epidermis and middle layers
D. Middle layers and sporogenous tissue.

Answer: D
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# 91. Tapetal cells show 

A. Meiosis
B. Mitosis
C. Endomitosis
D. Endomitosis and endopolyploidy.

Answer: D
(D) Watch Video Solution
92. Tapetal cells are
A. Uninucleate
B. Binucleate
C. Multinucleate
D. Enucleate.

Answer: C

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93. Tapetal cells are
A. Glandular or amoeboid

## B. Glandular

## C. Invasive

D. Ephemeral.

Answer: A

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94. Tapetal cells are usually:
A. Haploid
B. Polyploid

## C. Diploid

## D. Triploid

## Answer: B

## D Watch Video Solution

## 95. Role of tapetum was discovered by

A. Flemming
B. Ubisch
C. Strasburger
D. Nawaschin.

## Answer: B

## D Watch Video Solution

## 96. Tapetum is

A. Parietal in origin
B. Inner most wall layer of pollen sac
C. Nutritive and provides wall material to
pollen grains
D. All of above.

## Answer: D

## D Watch Video Solution

## 97. Ubisch bodies are produced by

A. Middle layer
B. Tapetum cells
C. Pollen mother cells
D. Endothecium.

## D Watch Video Solution

98. Ubisch bodies take part in development of
A. Pollen grains
B. Syncytium
C. Microgametophyte
D. Microsporangium.

# 99. In dicots the most common pollen tetrad is 

A. Isobilateral
B. Tetrahedral
C. Linear
D. Decussate.

Answer: B
100. In monocots,the most common pollen tetrad is
A. Isobilateral
B. Tetrahedral
C. Linear
D. T- shaped or decussate.

Answer: A

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# 101. Pollen tatrad of Aristolochia elegans is 

A. Decussate or T-shaped
B. Linear or isobilateral
C. Tetrahedral

D. Any of the above.

## Answer: D

# 102. Compound pollen grains occur in 

A. Calotropis
B. Orchids
C. Juncus or Cryptostegia

D. Asclepias

Answer: C

## 103. Pollinia occur in

A. Milkweeds and orchids
B. China Rose
C. Radish
D. Sunflower.

Answer: A
104. A pollinium consists of
A. A bag of pollen grains formed in a microsporangium
B. A cluster of pollen grains belonging to a
chamber of microsporangium
C. Group of four pollen grains derived from
a single mother cell
D. Two pollen tetrads attached by small
stalks.

## D Watch Video Solution

105. A translator consists of
A. A pollnium, a caudicle and a
corpusculum
B. Two pollinia,two caudicles and two
corpuscula
C. Two pollinia, two caudicles and one corpusculum
D. two pollinia and one corpusculum.

## Answer: C

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106. The most common type of tapetum is
A. Secretary or glandular type
B. Amoeboid or invasive type

# C. Nonglandular and noninvasive type 

## D. Resupinate type

## Answer: B

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107. In amoeboid type of tatetum
A. The cells remain in situ
B. The cells secrete chemicals for degeneration of middle layers
C. The cells pass in between the middle layers
D. The cells form plasmodium that passes
in between pollen grains mother cells.

## Answer: D

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108. In anther, meiosis occur in

A. Tapetal cells

B. Endothecial cells
C. Pollen mother cells
D. Stomium cells.

## Answer: C

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109. How many pollen mother cells should undergo meiotic division to produce 64 pollen grains?
A. 16
B. 32
C. 64
D. 80

Answer: A

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110. The function of anther is
A. Produce Ubisch bodies
B. Produce pollen grains
C. Store and protect pollen grains
D. All the above.

Answer: B

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111. Wall of a mature pollen grain consists of
A. Ektexine and endexine
B. Tapetum and endothecium

## C. Exine and intine

## D. Foot and baculate layer.

## Answer: C

## - Watch Video Solution

112. Intine of pollen grain is made of
A. Callose
B. Pecto - cellulose
C. Cellulose
D. Fat- like sporopollenin.

Answer: B

## D Watch Video Solution

113. Exine of pollen grain is formed of
A. Callose
B. Pecto - cellulose
C. Ligno - cellulose
D. Sporopollenin.

## Answer: D

## D Watch Video Solution

114. Abundant occurrence of fossilised pollen grains is due to resistant
A. Lignocellulose
B. Sporopollenin
C. Pectocellulose
D. Pectolignin.

## - Watch Video Solution

115. Sporopollenin is chemically:
A. Homopolysaccharide
B. Heteropolysccharide
C. Protein
D. Fatty substance.
116. Exine is differentiated into
A. Foot layer and beculate layer
B. Foot layer, beculate layer, tectum and
endexine
C. Ektexine and endexine
D. Both $B$ and $C$

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117. Sculpuring present on the surface of pollen grain is due to
A. Foot layer
B. Tectum
C. Tectum and beculate layer.

D. Foot layer and baculate layer.

## Answer: C

118. Germ pore/germinal furrow present on the surface of pollen grain represents
A. Area where exine is thin or absent
B. Specialised thickening of exine
C. Specialised thickening of intine
D. Area where tectum is absent.

Answer: A
119. Monocot pollen grains are generally
A. Monocolpate
B. Bicolpate
C. Tricolpate
D. Multicolpate.

Answer: A
120. Dicot pollen grains are commonly
A. Monocolpate

B. Bicolpate

C. Tricolpate
D. Multicolpate.

Answer: C
121. A yellow sticky substance present on the
surface of entomophilous pollen grains is
A. Sporopollenin
B. Pollinium
C. Lignosuberin
D. Pollenkitt.

Answer: D
(D) Watch Video Solution

# 122. Pollen grain is liberated in 

A. One celled state
B. Two celled state
C. Three called state
D. Two or three celled state.

Answer: D

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123. Pollen grain represents
A. Spore
B. Zygote
C. Immature male gametophyte
D. Male gamete.

## Answer: C

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124. Innermost layer of pollen sac which
functions as a nutritive layer is
A. Endothecium
B. Tapetum
C. Endothelium
D. Intine.

Answer: B

- Watch Video Solution

125. Pollen tube is covered by a membrane made of
A. Pectocellulose
B. Sporopollenin
C. Cellulose
D. Lignocellulose.

Answer: A

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126. Siphonogamy is
A. Fertilization assisted through pollen tube
B. Fusion between dissimilar gametes both
of which are nonmotile
C. Fertilization of ovule thorugh funcile
D. Fertilization with the help of siphon
system.

## Answer: A

# 127. Which one forms the pollen tube 

A. Prothallia cell

B. Vegatative cell

C. Generative cell
D. Stalk cell.

Answer: B
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128. Number of prothallial cells presnet in the male gametophyte of angiosperms is
A. one
B. Two
C. many
D. zero.

Answer: D

D Watch Video Solution
129. Which one forms the male gametes in angisoperms
A. Antherdial cell
B. Body cell
C. Generative cell
D. Tube cell.

Answer: C

D Watch Video Solution
130. Polysiphonous condition is occasionally

## found in

A. Ranunculaceae
B. Malvaceae and Cucurbitaceae
C. Ranunculaceae and Brassicaceae
D. Poaceae and Palmae.

Answer: B
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# 131. Growth of pollen tube is 

A. Apical
B. Basal
C. Intercalary
D. Diffused.

Answer: A
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132. In a mautre angiospermic male gametophyte, the male gametes are present in the
A. Pollen grain part
B. Base of pollen tube
C. All over inside the male gametophyte
D. Tip of the pollen tube.

Answer: D

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133. Number of nuclei present in the mature male gametophyte of angisoperms is
A. one
B. two
C. Three
D. Many.

Answer: C
( Watch Video Solution

# 134. Pollen tube was discovered by 

A. Camerarius
B. Amici
C. Hofmeister
D. Nemec.

Answer: B
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135. What is true of wall of pollen sac
A. Endothecium occure inner to tapetum
B. Tapetum lies below the endothecium
C. Middle layers occure below the epidermis and outside the tapetum

D. Middle layers lie between endothecium

and tapetum.

## Answer: D

## D Watch Video Solution

## 136. Tapetum is

A. Inner nutritive layer that persists at maturity
B. Inner nutritive layer that degenerates at maturity
C. Outer nutritive layer that degenerates at maturity
D. Outer nutritive layer that persists at maturity.

## - Watch Video Solution

137. At the time of anther dehiscence
A. Middle
layers
develop
fibrous
thickenings
B. Epidermic degenerates
C. Endothecium
develops
fibrous
thickenings
D. Endothecium degenerates.

## Answer: C

## D Watch Video Solution

138. Fibrous thickening of endothecium are in
the from of
A. Annuli
B. Tangential strips
C. Spiral bands

## D. Spiral radial bands.

## Answer: D

## D Watch Video Solution

139. What is wrong
A. Obturator occurs in the ovary
B. Grass pollen grains are monosiphonous
C. Tip of pollen tube contains dense

# D. Tip of the pollen tube contains callose 

 plugs.
## Answer: D

D Watch Video Solution
140. Megasporangium is equivalent to
A. Ovule
B. Embryo sac
C. Ovary
D. Egg apparatus.

## Answer: A

## D Watch Video Solution

141. Ovule is
A. Megasporangium
B. Megasporophy11
C. Integumented megasporangium
D. Rolled megasporophy11.

## Answer: C

- Watch Video Solution

142. Which condition is more advanced
A. Bitegmic
B. Unitegmic
C. Tritegmic
D. Ategmic.
143. Ategmic ovule is found in
A. sunflower
B. Chenopodium
C. Olax
D. Junglans.

## Answer: C

144. Ovules are attached to a paranchymatous
cushion called
A. Nucellus
B. Obturator
C. Conducting tissue
D. Placenta.

Answer: D

- Watch Video Solution


## 145. The stalk of ovule is

A. Pedicel
B. Funiculus
C. Petiolule
D. Rechiole.

Answer: B
( Watch Video Solution
146. A mass of perenchymatous tissue forming
the bulk of ovule is
A. Obturator
B. Female gametophtye
C. Nucellus
D. Endosperm.

Answer: C
(D) Watch Video Solution
147. Ovule is tritegumic in
A. Juglans
B. Casuarina
C. Opunita
D. Asphodelus.

Answer: D

D Watch Video Solution
148. A primitive massive nucellus occurs in some ovules. The condition is called
A. Crassinucellate
B. Tenuinucellate
C. Resupinate ovule
D. Protonucellate.

Answer: A
(D) Watch Video Solution
149. The tenuincellate ovule has
A. Larege amount of nucellus
B. Small amount of nucellus
C. Micropylar nucellus
D. Chalazal nucellus.

Answer: B
150. The point at which funiculus touches the ovule is
A. Chalaza
B. Hilum
C. Raphe
D. Endothelium.

Answer: B
( Watch Video Solution

# A. Ridge formed by fusion of funicle with 

the body of ovule
B. Space between integument and nucellus
C. Place of origin of integuments
D. Place where nucellus communicates with
cavity of ovary.

## Answer: C

## 152. Raphe is

A. Ridge formed by union of funicle with body of ovule
B. Distance between chalaza and micropyle
C. Distance between hilum and micropyle
D. Area between hilum and chalaza.

## Answer: A

153. A noncellular layer present on the outside of nucellus is
A. Integument
B. Exine
C. Endostomium
D. Cuticle.

Answer: D
( Watch Video Solution

## 154. A nutritive inner region of integument is

A. Amphithecium

B. Endothecium

C. Endothelium
D. Endostomium.

Answer: C
155. In ovule, archesporial cell differentitaes
from nucellus
A. At chalzal region
B. Middle of nucellus
C. Laterally nea endothelium
D. Hypodermally in the micropylar region.

Answer: D
(D) Watch Video Solution
156. In ovule, meiosis occurs in
A. Archesporial cell
B. Megasporocyte
C. Parietal cell
D. None of the above

Answer: B
( Watch Video Solution
157. Meiosis of megaspore mother cell generally produces
A. Linear tetrad
B. Tetrahedral tetrad
C. Decussate tetrad

D. Isobilateral tetrad.

Answer: A

- Watch Video Solution

158. Out of linear tetrad wich one is the functional megaspore
A. Micropylar
B. Any of the middle ones
C. Chalazal
D. Any of the four.

Answer: C

- Watch Video Solution


## 159. Embryo sac represents

A. Megaspore

B. Megagametophyte

C. Megasporangium
D. Female gamete.

Answer: B

## - Watch Video Solution

# 160. The most common type of embryo sac is 

A. Polygonum type
B. Drusa type
C. Adoxa type
D. Fritillaria type.

Answer: A

# 161. Embryo sac is surrounded by a wall of 

A. Specialized nucellar cells
B. Transfer cells
C. Membrane of megaspore
D. Membrane of egg.

## Answer: C

162. The different cells of embryo sac are
A. Central cell and antipodal cells
B. Antipodal cells and egg apparatus
C. Central cell and egg apparatus
D. Egg apparatus, central cell and antipodal cells.

## Answer: D

163. Egg apparatus of angiosperm consists of
A. Egg and antipodal cells
B. Egg and central cell
C. Egg and two synergids
D. Egg and one synergid.

## Answer: C

## D Watch Video Solution

164. Lateral hooks occur in
A. Oosphere or egg
B. Synergids
C. Central cell and egg apparatus
D. Antipodal cells.

Answer: B

D View Text Solution
165. Function of synergids is to
A. Attract pollen tube and bear its shock
B. Fuse with extra male gametes and form
endosperm
C. Produce additional embryo
D. Protect egg from pathogens.

## Answer: A

D Watch Video Solution
166. Central cell of embryo sac contains
A. A single haploid nucleus
B. Two haploid polar nucleus
C. One diploid fusion or secondary nucleus
D. Either B or C.

## Answer: D

## D Watch Video Solution

167. Secondary nucleus formed by the fusion of two polar nuclei is also called
A. Vegetative nucleus

## B. Definitive nucleus

C. Generative nucleus
D. Primary endosperm nucleus.

## Answer: A

## D View Text Solution

168. A space occurs between nucellus and integument towards micropylar end. It is called
A. Endostome
B. Endothecium
C. Endothelium
D. Endosperm.

Answer: A

D Watch Video Solution
169. In embryo sac, which one commonly develops haustoria
A. Synergids
B. Antipodal cells and egg apparatus
C. Oosphere
D. Central cell.

Answer: B

D View Text Solution
170. Orthotropous ovules occur in
A. Pisum sativum

# B. Solanum nigrum 

C. Polygonum
D. Helianthus.

## Answer: C

## D Watch Video Solution

171. Ovule is straight with funiculus, embryo sac, chalaza and micropyle lying on one straight line. It is
A. Anatropous
B. Orthotropus
C. Hemitropous
D. Amphitropous.

Answer: B

D Watch Video Solution
172. the most common type of ovule is
A. Orthotropous

## B. Hemitropous

C. Antraopous
D. Campylotropous.

## Answer: C

## D Watch Video Solution

173. Circinotropous ovule occurs in

A. Opuntia

B. Ranunculus

## C. Polygonum

D. Cicer.

## Answer: A

## D Watch Video Solution

174. The characteristic of anatropous ovule is
A. Occurrence of hilum near the micropyle
B. Presence of raphe
C. Body of the ovule is inverted
D. All the above.

## Answer: D

## D Watch Video Solution

175. In hemitropous ovule which one lies

## nearer

A. Hilum and micropyle
B. Chalaza and micropyle
C. Hilum and chalaza

# D. None, hilum is equidistant to micropyle 

 and chalaza.
## Answer: D

## D Watch Video Solution

176. Body of the ovule is stright but at right angles to the funicle. It is
A. Orthotropous
B. Campylotropous

## C. Hemitropous

D. Amphitropous.

## Answer: C

## - Watch Video Solution

177. What is the characterisic of amphhitropous ovule
A. Body is straight but the embryo sac is
B. Body of ovule as well as embryo sac are curved
C. Body of ovule is curved but the embryo
sac is straight
D. The funiculus is coiled over the body of ovule.

## Answer: B

178. Name the type of ovule in which hilum, chalaa and micropyle come to lie nearby
A. Campylotropous
B. Amphitropous
C. Both $A$ and $B$
D. Hemitropous.

Answer: C
(D) Watch Video Solution
179. the success of seed plants on land is mainly due to
A. Presence of conducting tissue
B. Development of secondary growth
C. Evolution of siphonogamy
D. All the above.

Answer: D

D Watch Video Solution
180. Which one guides the pollen tube in the style
A. Secretion of synergids
B. Secretion of oosphere
C. Obturator
D. Conducting tissue.

Answer: A

D Watch Video Solution
181. The device that guides the pollen tube in the cavity of ovary is
A. Obturator occurs in the ovary
B. Transmitting tissue
C. Placenta
D. Synergids.

Answer: A

D Watch Video Solution

# 182. Which is more common 

A. Mesogamy

B. Porogamy

C. Chalazogamy

## D. Aporogamy.

Answer: B
183. In porogamy, the pollen tube enters the ovule through
A. Funicle
B. Chalaza and micropyle
C. Micropyle
D. Integuments.

Answer: C
( Watch Video Solution
184. The phenomenon of pollen tube entering
the ovule laterally through integuments is
called
A. Mesogamy
B. Aprogamy
C. Chalazogamy
D. Vegetative fertilization.

## Answer: A

# 185. Chalazogamy occurs in 

A. Cucurbita
B. Lily
C. Populus
D. Casuarina.

## Answer: D

- Watch Video Solution

186. A pollen the enters the ovule through
chalaza lying opposite the micropyle. It will enter the embryo sac through
A. Chalazal end
B. Laterally
C. Antipodal haustorium
D. Micropylar end.

Answer: D

D Watch Video Solution
187. Embryo sac of flowering plants develops

## from

A. Zygote
B. Megaspore
C. Nucellus
D. Embryo.

Answer: B
( Watch Video Solution
188. Which one is the female gamete in embryo sac
A. Synergid
B. Antipodal cells
C. Oosphere
D. Central cell and egg apparatus

Answer: D

D Watch Video Solution

## 189. Who discovered fertilization in ovule

A. Amici
B. Nawaschin
C. Hofmeister
D. Strasburger.

## Answer: D

190. Genetic fertilization involves the fusion of
male gamete with
A. A synergid
B. Oosphere
C. Central cell and egg apparatus
D. Antipodal cell.

Answer: B
(D) View Text Solution
191. Vegetative fertilization involves fusion of
A. Two polor nuclei
B. A male gamete and a synergid
C. A male gamete and antipodal cell
D. Nucleus of a male gamete and secondary
nucleus.

## Answer: D

## D Watch Video Solution

## 192. Vegetative nucleus occurs in

A. All flowering plants
B. All seed plants
C. All vascular plants
D. All embryophytes.

Answer: A
193. What is the other name of vegetative fertilization
A. Double fertilization
B. Somatogamy
C. Triple fusion
D. Central fertilization.

Answer: C
( Watch Video Solution
194. Triple fusion was studied for the first time by
A. Hofmeister
B. Nemec
C. Strasburger
D. Nawaschin.

Answer: D

D Watch Video Solution

## 195. Syngamy is

A. Fusion of two cells
B. Fusion of two nuclei
C. Fusion of two gametes
D. Fusion of two gametic nuclei.

Answer: C

## 196. Karyogamy is

A. Fusion of two germ cells
B. Fusion of two gametic nuclei
C. Fusion of a somaic cell and a reproductive cell
D. Fusion of two somatic cells.

Answer: B

# 197. Double fertilization occurs in 

A. Pinus
B. Selaginella
C. Funaria
D. Dalbergia/Capsella.

## Answer: D

- Watch Video Solution

198. Fertilization occurs inside
A. Embryo sac
B. Ovule
C. Ovary
D. Carpel.

Answer: A

D Watch Video Solution
199. Which will form the embryo
A. Egg apparatus

## B. Oosphere

C. Fertilised ovum
D. Fertilised synergid.

## Answer: C

## D Watch Video Solution

## 200. Archesporium of ovule is

A. Single celled derived from nucellar
B. Single celled derived from nucellar hypodermis
C. Multicellular derived from nucellar
epidermis
D. Multicellular derived from nucellar
hypodermis.

Answer: B

## 201. Pollen grian germinates through

A. Micropyle

B. Intergument

C. Chalaza
D. Germ pore.

## Answer: D

202. As compared to oosphere, the male gamete of angiosperms is
A. Small
B. With thein cytoplasm
C. Nonvacuolate
D. All the above.

Answer: D
( Watch Video Solution
203. the structure which can show the effedt of traits brought by the male gamete immediately after its formation is
A. Embryo
B. Cotyledons
C. Endosperm
D. Plumule.

## Answer: C

## 204. Which is not diploid

A. Nucellus

B. Integuments
C. Endosperm
D. Embryo.

## Answer: C

- Watch Video Solution

205. Endosperm is generally
A. Diploid

## B. Triploid

C. Haploid
D. Polyploid.

Answer: B

## D Watch Video Solution

## 206. Very hard endosperm is produced in

A. Areca

## B. Phytelepas

C. Phoenix
D. All the above.

Answer: D

- Watch Video Solution

207. Part of endosperm is liquid in
A. Cocos
B. Datura

## C. Passiflora

D. Ricinus.

## Answer: A

## D Watch Video Solution

208. Free nuclear divisions are characteristic of
A. Cellular endosperm
B. Nuclear endosperm
C. Helobial endosperm
D. Both $B$ and $C$.

## Answer: D

## D Watch Video Solution

## 209. Growth of angiospermic embryo is

A. Endoscopic
B. Exoscopic
C. Endosporic
D. Exosporic.

## D Watch Video Solution

210. Suspensor formed during embryogeny of Sagittaria is
A. 6-10 celled
B. 4-5 celled
C. 2-3 celled
D. 1-celled.

## Answer: D

## D View Text Solution

211. In dicot embryo the radicle is formed by
A. Epibasal tier of embryo
B. Hypobasal tier of embryo
C. Hypophysis of suspensor
D. Terminal cell of suspensor.
212. In monocot embryo the radicle is produced by
A. terminal cell
B. Middle cell
C. Epiblast
D. Suspensor.

Answer: B
213. Epiblast present in certain monocot embryo represents
A. Rudimentary leaves
B. Mesocotyl
C. Scutellum
D. Second cotyledon.

Answer: D

- Watch Video Solution

214. Development of embryo from a cell of embryo sac other than egg is an example of
A. Apospory
B. Apogamy
C. Adventitive embryogeny
D. Parthenogenesis.

## Answer: C

## 215. Nucellar embryo is

A. Amphimictic haploid

B. Amphimictic diploid

C. Apomictic haploid

D. Apomictic diploid.

## Answer: D

## 216. Development of sporophyte/embryo from

gametophytic tissue without fusion of gametes is
A. Apospory
B. Apogamy
C. Apomixis
D. Parthenogenesis.

Answer: B

D Watch Video Solution
217. Formation of gametophyte directly from sporophyte without meiosis is.
A. Apospory
B. Apogamy
C. Parthenogenesis
D. Amphimixis.

Answer: A
( Watch Video Solution

## 218. Pollination is

A. Transfer of pollen from antherto stigma
B. Shedding of pollen grains from anthers
C. Dispersal of pollen
D. Fertilization of plants.

## Answer: A

## - Watch Video Solution

219. Anemophily is pollination through
A. Water
B. Air
C. Insects
D. Worms.

Answer: B

## D Watch Video Solution

## 220. Hydrophily occurs in

A. Nymphaea
B. Nelumbo
C. Eichhornia
D. Vallisneria/Zostera.

## Answer: D

## D Watch Video Solution

## 221. Cleistogamy occurs in

A. Ficus

B. Commelina

## C. Anthocephalus

D. Vallisneria.

Answer: B

## D Watch Video Solution

222. Cleistogamous flowers are
A. Male flowers which never open
B. Famale flowers which never open
C. Bisexual flowers which never open

# D. Open bisexual flowers which perform self 

 pollination in bud condition.
## Answer: C

## D Watch Video Solution

223. Maturation of stigma and anthers at different times in te same flower is
A. Heterostyly
B. Dichogamy

## C. Dicliny

D. Herkogamy.

Answer: B

## - Watch Video Solution

224. Pollinia are found in the flowers o
A. Calotropis/Asclepiadaceae
B. Vinca (= Catharanthus)
C. Hibiscus/Malvaceae

## D. Salvia/Labiatae.

## Answer: A

## D Watch Video Solution

225. Nontransfer of pollen from anther to
stigma of the same flower due to a mechanical
barrier is
A. Dichogamy
B. Herkogamy
C. Heterostyly
D. Cleistogamy.

Answer: B

## D Watch Video Solution

## 226. Pollination characteristically occurs in

A. Bryophytes and angiosperms
B. Pteridophytes and angiosperms
C. Angiosperms and gymnosperms

## D. Angiosperms and fungi.

## Answer: C

## D Watch Video Solution

227. Dichogamy is
A. Placement of anthers and stigmas at different levels
B. Inability of the pollen to germinate on
the stigma of the same flower
C. Occurrence of barrier between anther and stigma of the same flower
D. Maturation of anthers and stigmas at different times.

## Answer: D

D Watch Video Solution
228. Maize shows
A. Cross pollination by rain

# B. Cross pollination by wind 

C. Cross pollination by insects
D. Self pollination.

Answer: B

- Watch Video Solution

229. Bisexual flowers which never open, demonstrate
A. Homogamous
B. Heterogamous
C. Dichogamous
D. Cleistogamous.

## Answer: D

## - Watch Video Solution

## 230. Ornithophily is pollination by

A. Humans
B. Wind

## C. Birds

D. Bat.

## Answer: C

## D Watch Video Solution

231. In sausage tree (Kigelia africana) the pollination takes place by
A. Bats
B. Birds

## C. Insects

D. Wind.

Answer: A

## D Watch Video Solution

232. Number of nuclei taking part in double fertilization is
A. 5
B. 3
C. 4
D. 2

## Answer: A

## D Watch Video Solution

233. Fusion of one male gamete with egg and other of the same pollen tube with two polar nuclei is
A. Triple fusion
B. Vegetative fertilization
C. Double fertilization
D. Parthenogenesis.

## Answer: C

## D Watch Video Solution

234. A natural sequence of developmental stages in the life cycle of an angiosperm is
A. Cleavage - Fertilization - Differentiation -

Fruit formation
B. Pollination - Fertilization - Seed
formation - Germination
C. Germination - Double fertilization

Endosperm formation - Seed dispersal

D. Maturation - Mitosis - Differentiation -

Fertilization.

## Answer: B

235. Synergids of the polygonum type embryo
sac are
A. Hexaploid
B. Haploid
C. Diploid
D. Triploid.

Answer: B

## 236. Meiosis occurs in

A. Endosperm cells
B. Intercalary meristems
C. Apical meristems
D. Spore mother cells.

Answer: D
(D) Watch Video Solution

## 237. Sporogenesis is

A. Development and formation of spores
B. Production of mitospores
C. Production of meiospores
D. Formation of zygote and embryo.

Answer: A

## 238. Palynology is connected with the study of

A. Pollen grains

B. Palms

C. Flowers
D. Fruits.

Answer: A
239. The phenomenon of pollen tube entering
the ovule laterally through integuments is called
A. Isogamy
B. Porogamy
C. Mesogamy
D. Chalazogamy.

Answer: C

D Watch Video Solution

# 240. The function of innermost layer of pollen 

## sac, tapetum is

A. Protection
B. Nutrition
C. Dehiscence
D. Mechanical strength.

Answer: B
(D) Watch Video Solution

# 241. Number of prothallial cells presnet in the 

 male gametophyte of angiosperms isA. Three
B. Two
C. One
D. Zero.

Answer: D

D Watch Video Solution

# 242. Male gametophyte 

angiosperms/monocots is
A. Microsporangium
B. Nucellus
C. Microspore
D. Stamen.

Answer: C

D Watch Video Solution
243. Generative cell was destroyed by laser but a normal pollen tube was still formed because
A. Vegetative cell is not damaged
B. Contents of killed generative cell stimulate pollen growth
C. Laser beam stimulates growth of pollen
tube
D. None of the above

Answer: A

# 244. How many pollen mother cells will form 

## 1000 pollen grains

A. 200
B. 250
C. 300
D. 100

Answer: B

- Watch Video Solution


## 245. Which is correct

A. Gametes are invariably haploid
B. Spores are invariably haploid
C. Gametes are generally haploid
D. Both spores and gametes are invariably haploid.

Answer: A

D Watch Video Solution
246. Anthesis refers to:
A. Growth of pollen tube inside the carpel
B. Dehiscence of anthers
C. Opening of floral bud
D. Emergence of anthers.

## Answer: C

247. Formation, growth and development of a
new individual beginning from egg is known
as
A. Apomixis
B. Embryology
C. Embryogeny
D. Cytology.

Answer: B

D Watch Video Solution
248. Ovule is attached to placenta of ovary wall by:
A. Funicle
B. Petiole
C. Pedicel
D. Placenta.

Answer: A

D Watch Video Solution
249. The point of atachment of funcile with the body of the ovule is
A. Nucellus
B. Chalaza
C. Micropyle
D. Hilum.

Answer: D

D Watch Video Solution
250. Embryo sac occurs in
A. Embryo
B. Axis part of embryo
C. Ovule
D. Endosperm.

Answer: C
251. Genotypically the pollen grains produced by an anther belong to
A. One type
B. Two types
C. Many types
D. All the above.

Answer: C
(D) View Text Solution

# 252. Meiosis is best observed in dividing 

A. Cells of apical meristem
B. Cells of lateral meristem
C. Microspores and anther wall
D. Microsporocytes.

Answer: D
( Watch Video Solution
253. Female gametophyte of angiosperm is called:
A. Ovule
B. Megaspore mother cell
C. Embryo sac
D. Nucellus.

Answer: C

D Watch Video Solution
254. In angiosperms the functional megaspore in the linear tetrad is generally
A. Micropylar
B. Second from micropylar
C. Third from micropylar
D. Fourth from micropylar.

Answer: D

D Watch Video Solution
255. A polygonum type embryo sac is:
A. 7 - celled, 7 - nuleate
B. 7 - celled, 8 - nucleate
C. 8 - celled, 7 - nucleate
D. 8 - celled, 8 - nucleate.

Answer: B
256. Embryo sac is monosporic when it develops from
A. One of the four megaspores of a megaspore mother cell
B. Three megaspores of a megaspore
tetrad
C. Two functional megaspores
D. The megaspore mother cell where meiosis has occurred but cytokinesis

## does not take place.

## Answer: A

## D Watch Video Solution

257. Crassinucellate ovule shows:
A. Ill developed nucellus
B. Partially developed nucellus
C. Well developed nucellus
D. No nucellus.

## Answer: C

## - Watch Video Solution

258. Which one of the following pairs of plant structures has haploid number of chromosomes
A. Nucellus and antipodal cells
B. Antipodal cells and egg cell
C. Antipodal cells and megaspore mother

# D. Nucelus and primary endosperm 

nucleus.

Answer: B

- Watch Video Solution

259. Point out the odd one
A. Nucellus
B. Embryo sac
C. Micropyle
D. Pollen grain.

## Answer: D

## D Watch Video Solution

260. Which one shows meiosis
A. Root tip

B. Archesporium

C. Pollen grain
D. Anther.

## Answer: D

## - Watch Video Solution

261. When the ovule is curved and embryo sac becomes horse shoe shaped, such an ovule is called
A. Campylotropous
B. Amphitropous
C. Orthotropous
D. Anatropous.

Answer: B

## D Watch Video Solution

262. Ovule is straight with funiculus, embryo
sac, chalaza and micropyle lying on one straight line. It is
A. Othotropous
B. Anatropous
C. Campylotropous
D. Amphitropous.

Answer: A

## D Watch Video Solution

263. Ovule is inverted with body fused to
funicle, micropyle lying close to hilum and
facing the placenta. It is
A. Hemitropous
B. Orthotropous
C. Anatropous
D. Campylotropous.

## - Watch Video Solution

# 264. Ovules of Capsella and Pisum sativum are 

A. Orthotropous
B. Anatropous
C. Amphitropous
D. Campylotropous.
265. In orthotropous ovule, the micropyle and chalaza are
A. Parallel to funiculus
B. At right angles to funiculus
C. Oblique angle to funiculus
D. In straight line with funiculus.

Answer: D
266. Charomosome number in a flowering plant can be
A. Haploid, diploid and polyploid
B. Haploid and diploid
C. Only diploid
D. Only haploid.

Answer: A

- Watch Video Solution

267. Famous embryologist of india who also advanced the science of morphology and tissue culture in India is
A. P. Maheshwari
B. T.S Sadasivan
C. Swaminathan
D. Ramdas.

Answer: A
268. Double fertilization and triple fusion were discovered by
A. Hofmeister
B. Nawaschin and Guignard
C. Leeuwenhoek
D. Strasburger.

Answer: B
269. Water is not required in the fertilization of
A. Dryopteris
B. Selaginella
C. Vallisneria
D. Pisum/Maize.

## Answer: D

270. The nuclei of the sperm and egg fuse as a result of
A. Base pairing of their DNA and RNA
B. Formation of hydrogen bonds
C. Mutual attractio de to differences in electrical charges
D. Attraction of their protoplasts.

## Answer: D

## 271. Double fertilization is a characteristic of

A. Angiosperms
B. Pteriodophytes
C. Gymnosperms
D. Bryophytes.

## Answer: A

272. When pollen tube enters through micropyle, it is called:
A. Chalazogamy
B. Mesogamy
C. Porogamy
D. Pseudoamy.

Answer: C
( Watch Video Solution
273. Double fertilization is fusion of:
A. Two egg
B. Two eggs and ploar nuclei with pollen
nuclei
C. One male gamete with egg and other
with synergid
D. One male gamete with egg and other
with secondary nucleus.

## Answer: D

274. A diploid female plant and a tetraploid male plant are crossed. The ploidy of endosperm shall be
A. Tetraploid
B. Triploid
C. Diploid
D. Pentaploid.
275. Endosperm of angiosperms is produced after fertilization of a male gamete with
A. Antipodals
B. Synergids
C. Secondary nucleus
D. Oosphere.

## Answer: C

## 276. Triploid tissue is

A. Endosperm in Maize/Wheat/Lily
B. Leaf in Onion/Bryophyllum/Pinus
C. Root in Onion/Radish/Carrot
D. Ferm prothallus.

Answer: A

- Watch Video Solution


## 277. Which one forms the endosperm

A. Antipodals
B. Synergids
C. Secondary nucleus
D. Oosphere.

## Answer: C

D Watch Video Solution
278. Fertilization is synonym with
A. Autogamy
B. Syngamy
C. Homogamy
D. Apogamy.

## Answer: B

## D Watch Video Solution

279. A homogamous tall pistilltate plant (TT) is crossed with homogamous dwarf staminate
plant (tt). What is the genotype of endosperm?
A. TTT
B. TTt
C. Ttt
D. ttt .

Answer: B
( Watch Video Solution

## 280. Milky water of green Coconut is

A. Liquid chalaza
B. Liquid nucellus
C. Liquid/free nuclear endosperm
D. Liquid female gametophyte.

Answer: C
281. In $a$ fertilized ovule, $n, 2 n$ and $3 n$ conditions occur respectively in
A. Antipodals, egg and endosperm
B. Egg, nucellus and endosperm
C. Endosperm, nucellus and egg
D. Antipodals, synergids and integuments.

Answer: A
(D) Watch Video Solution
282. Total number of meiotic division required
for forming 100 zygotes/100 grains of wheat is
A. 100
B. 75
C. 125
D. 50

Answer: C

D Watch Video Solution
283. if the number of chromosomes in root cells is 14 , what will be the number of chromosomes in synergids cells of an ovule of that parent
A. 14
B. 21
C. 7
D. 28

Answer: C
284. What is correct when chromosome number in leaf cells of an angiosperm is 22
A. 44 in stem cells
B. 44 in embryo
C. 22 in gametes
D. 11 in gametes.

Answer: D

D Watch Video Solution
285. Number of meiotic divisions required to produce 200/400 seeds of Pea would be
A. 200/400
B. $400 / 800$
C. 300/600
D. 250/500.

Answer: D

D Watch Video Solution

## 286. In angiosperms the number of meiotic

divisions required to produce 100

macrospores is
A. 125
B. 100
C. 50
D. 25

Answer: B

D Watch Video Solution
287. How many meiotic divisions are necessary to produce 100 pollen grains
A. 125
B. 100
C. 50
D. 25

Answer: D

D Watch Video Solution

# 288. The filiform apparatus is present in 

A. Synergids
B. Secondary nucleus
C. Antipodals
D. Egg nucleus.

Answer: A

D Watch Video Solution
289. In double fertilization, male gamete and
secondary nucleus form
A. Endosperm
B. Gamete
C. Embryo
D. Egg.

Answer: A

D Watch Video Solution

# 290. In angiosperms endosperm is formed by 

A. Division of fused polar nuclei
B.
C. Division of fused polar nuclei and male gamete

D. Free nuclear divisions of megaspore

## Answer: C

## D Watch Video Solution

291. In angiosperm, triple fusion is necessary
for the formation of
A. Embryo
B. Endosperm
C. Suspensor
D. Fruit wall.

Answer: B
(D) Watch Video Solution
292. Male gametes in angiosperms are formed by the division of
A. Generative cell
B. Uninucleate microspore
C. Vegetative cell
D. Pollen tube.

Answer: A

D Watch Video Solution

## 293. A typical anther wall possesses

A. Endothecium and tapetum
B. Exothecium and tapetum
C. Exothecium and endothecium
D. Exothecium, endothecium and tapetum.

Answer: D
294. In an embryo sac of a typical angiosperm
there are
A. Egg, synergids and secondary cell
B. Egg, synergids, central cell and polar nuclei
C. Egg, synergids, polar nuclei and antipodals
D. Egg, synergids and secondary wall.

Answer: C
295. Outer wall/exine of pollen grain is formed

## of

A. Cellulose

B. Pectocellulose
C. Lignin
D. Sporopollenin.

Answer: D
296. Chromosome number in oosphere is 8 .

The number in angiospermic endosperm shall be
A. 8
B. 12
C. 16
D. 24

Answer: D
297. Movement of pollen tube towards embryo sac is
A. Thermotactic
B. Phototactic
C. Chemotactic
D. Thigmotactic.

Answer: C
298. Despite high level of heterozygosity, the progeny derived from a seed of cross pollinated plant was found to be completely uniform. One reason can be
A. Induced mutation
B. Polyploidy
C. Apomixis
D. Parthenocarpy.
299. Development of female gametophyte directly from megaspore mother cell without meiosis is called
A. Apogamy
B. Apospory
C. Syngamy
D. Parthenospore
300. A diploid egg, formed in embryo sac developed directly from nucellus,
parthenogenetically grows into embryo. The apomixis is
A. Vegetative apomixis
B. Adventitive apomixis
C. Diplospory
D. Apospory

## Answer: D

## D View Text Solution

301. Chief pollinators of agricultural crops are
A. Butterflies
B. Bees
C. Moths
D. Beetles.
302. Transfer of pollen grains from the another to the stigma of another flower of the same plant is called
A. Autogamy
B. Allogamy
C. Xenogamy
D. Geitonogamy.
303. Fragrant flowers with cell developed nectaries are an adaptation for
A. Zoophily
B. Anemophily
C. Entomophily
D. Hydrophily.

Answer: C
304. Pollination occurring in closed flowers is
A. Dicliny
B. Protogyny
C. Allogamy
D. Cleistogamy.

Answer: D
( Watch Video Solution
305. In chiropterophily, pollination is performed by
A. Bats
B. Birds
C. Squirrels
D. Insects.

Answer: A

- Watch Video Solution

306. Cleistogamous flowers are found in
A. Arachis hypogea
B. Solanum tuberosum
C. Cucumis melo
D. Allium cepa.

Answer: A

D Watch Video Solution
307. Feathery stigma occurs in
A. Pea
B. Wheat/Jowar
C. Datura
D. Caesalpinia.

Answer: B

D Watch Video Solution
308. Bees are important to agriculture as they
A. Produce wax
B. Perform pollination
C. Prevent pollination
D. Produce honey.

Answer: B

D Watch Video Solution
309. The phenomenon of pollen grains being
transferred to stigma by air is called
A. Anemophily

## B. Entomophily

C. Zoophily
D. Malacophily.

Answer: A

- Watch Video Solution

310. Myrmecophily is pollination by
A. Ants
B. Moths
C. Birds
D. Bats.

## Answer: A

## - Watch Video Solution

311. Moth pollinated flowers have
A. Inconspicuos petals with abundant pollen
B. Conspicuous coloured petals

## C. Coloured petals and nectaries

D. White scented petals and nectaries.

## Answer: D

## D Watch Video Solution

312. Dicliny is found in
A. Calotropis
B. Cucurbita
C. Crotalaria
D. Pisum.

Answer: B

## D Watch Video Solution

# 313. Cleistogamy is effective in 

A. Oryza sativa
B. Brassica campestris
C. Allium cepa
D. Pisum sativam.

## D Watch Video Solution

314. A plant pollinated by bats is
A. Ophrys
B. Salvia
C. Kigellia
D. All the above.

## 315. Cross pollination is

A. Autogamy

B. Allogamy

C. Chasmogamy
D. Cleistogamy.

Answer: B

## 316. Pollination by insect is called:

A. Entomophily
B. Chiropterophily
C. Anemophily
D. Zoophily.

Answer: A
317. Pollination by slug and snails is called

## A. Ornithophily

B. Chiropterophily
C. Entomophily

D. Malacophily.

## Answer: D

# 318. Polar nuclei are located in 

A. Pollen tube

B. Embryo sac
C. Ovule
D. Thalamus.

Answer: B

## 319. Sporopollenin is part of

A. Pollen grain covering

B. Oosphere covering
C. Ovule covering
D. Cell wall.

Answer: A

## 320. Synergid is connected to

A. Antipodal cell

B. Endosperm

C. Ovary
D. Egg cell.

Answer: D
(D) Watch Video Solution
321. Female gamete of angiosperms is represented by
A. Oospore
B. Carpel
C. Egg
D. Pollen grain.

Answer: C

D Watch Video Solution
322. Double fertilizatio results in formation of
A. Seed
B. Fruit
C. Megaspore mother cell
D. Endosperm.

Answer: D

D Watch Video Solution
323. Endosperm nucleus is :
A. Haploid
B. Diploid
C. Triploid
D. Tetraploid.

## Answer: C

## D Watch Video Solution

## 324. Fertilization involving carrying of male

 gametes by pollen tube isA. Porogamy
B. Siphonogamy
C. Chalazogamy
D. Syngonogamy.

## Answer: B

## D Watch Video Solution

325. One of the most resistant biological material present in the exine of pollen grain is
A. Lignin
B. Hemicellulose
C. Lignocellulose
D. Sporopollenin.

Answer: D

D Watch Video Solution
326. In endosperm of maize and Cycas, the ploidy level is:
A. Triploid in both

## B. Triploid and haploid

C. Triploid and diploid
D. Diploid and triploid.

## Answer: B

## D Watch Video Solution

327. In angiosperms, a mature male gametophyte is formed from a pollen mother cell through
A. Two meiotic divisions
B. Three metotic divisions
C. One meiotic two mitotic divisions
D. A single meiotic division.

## Answer: C

D Watch Video Solution
328. Polyembryony commonly occurs in
A. Carthamus
B. Citrus

## C. Corchorus

D. Maize.

Answer: B

## D Watch Video Solution

329. The cell of endosperm have 24
chromosomes. What will be the number of chromosomes in the gametes?
A. 8
B. 16
C. 24
D. 48

Answer: A

## D Watch Video Solution

330. Tetrad of megaspores is generally
A. Tetrahedral
B. Linear
C. Decussate
D. Isobilateral.

Answer: B

- Watch Video Solution

331. Micropyle occurs is
A. Ovary
B. Seed

## C. Ovule

D. Both $B$ and $C$.

## Answer: D

## D Watch Video Solution

332. Pollen grains are shed at
A. One - celled stage
B. 2-3 celled stage
C. 3 - celled stage

## D. 4-celled stage.

Answer: B

## D Watch Video Solution

333. Ubisch bodies are connected with the formation of
A. Sporopollenin
B. Intine and pollenkitt
C. Exine

## D. Pollenkitt and pollinia.

## Answer: C

## D Watch Video Solution

334. When vegetative cell of zygote form embryo it is called
A. Apospory
B. Diploid polyembryony
C. Adventitive polyembryony

## D. Apomixis.

## Answer: C

## D Watch Video Solution

335. Study of pollen grains is
A. Palynology
B. Palaeontology
C. Palaeobotany
D. None of the above.

## D Watch Video Solution

## 336. Perisperm is

A. Outer part of embryo sac
B. Degenerate synergid
C. Degenerate secondary nucleus
D. Remainsof nucellus.
337. The process of fusion between male nucleus and egg nucleus is called as
A. Syngamy
B. Double fertilization
C. Conjugation
D. Triple fusion.

Answer: A
338. Germ pore is the area where exine is
A. Thick
B. Thick and uniform
C. Uniform
D. Absent.

Answer: D
( Watch Video Solution
339. Mature male gametophyte in
angiosperms is:
A. One
B. Two
C. Three
D. Four.

Answer: C

- Watch Video Solution

340. Triple fusion occurs between
A. Egg and male gamete
B. Male gamete and secondary nucleus
C. Antipodal cell and male gamete
D. Egg and antipodal cell.

Answer: B

D Watch Video Solution
341. The gametes taking part in double

## fertilization are

A. 5
B. 4
C. 3
D. 2

Answer: C

- Watch Video Solution

342. Which one is diploid
A. Synergids
B. Secondary nucleus
C. Egg
D. Antipodals

Answer: B

D Watch Video Solution
343. Fore-runner of male gamete is
A. Megasporangium
B. Antipodal cell
C. Microspore mother cell
D. Embryo sac.

## Answer: C

D Watch Video Solution
344. Meiosis is best seen in
A. Gamete

# B. Microsporangium 

C. Pollen grain
D. Anther wall.

## Answer: B

## D Watch Video Solution

## 345. Which is part of female reproductive

system

A. Embryo sac
B. Anther
C. Stamen
D. Microspore mother cell.

## Answer: A

## D Watch Video Solution

346. Function of embryonal suspensor in angiosperms is to
A. Absorption of nourishment
B. Push the embryo into nutritive endosperm region
C. Formation of secondary embryos
D. All the above.

## Answer: B

## D Watch Video Solution

347. An anther having four microsporocytes
shall produce pollen grains
A. 24
B. 12
C. 8
D. 16

## Answer: D

D Watch Video Solution
348. If an angiospermic male plant is diploid and female plant tetraploid, the ploidy level of
A. Haploid

## B. Triploid

C. Tetraploid
D. Pentaploid.

## Answer: B

## D Watch Video Solution

349. Double fertilization was first discovered by Nawaschin (1898) in

# A. Lilium and Fritillaria 

B. Brassica and Iberis
C. Papaya and pea
D. Mango and Sugarcane.

## Answer: A

D Watch Video Solution
350. In mesogamy, pollen tube enters the ovule through
A. Middle of integuments after piercing the tissues
B. Middle of integuments without piercing the tissues
C. Chalaza
D. Middle of micropyle.

Answer: A
( Watch Video Solution
351. Pollen tube discharges its male gametes into
A. Egg
B. Healthy synergid
C. Degenerating synergid
D. Central cell.

Answer: C
( Watch Video Solution
352. Endosperm formation is suppressed in

A. Liliaceae

B. Cyperaceae
C. Orchidaceae and Podostemonaceae
D. Gramineae.

Answer: C
( Watch Video Solution
353. Formation of embryo directly from nucellus and integument is
A. Simple polyembryony
B. Adventitive polyembryony
C. Vegetative polyembryony
D. Cleavage polyembryony.

## Answer: B

(D) Watch Video Solution
354. Middle layer of anther wall is formed by secondary outer parietal layer in

A. Dicots

B. Monocots
C. Both A and B
D. None of the above.

Answer: C

D Watch Video Solution

## 355. Sporopollenin occurs in

A. Female gametophyte
B. Male gametophyte
C. Vegetative cells of pollen grain
D. Exine of pollen wall.

## Answer: D

## - Watch Video Solution

## 356. The embryo in sunflower has

A. One cotylendon

B. Two cotylendons

C. Three cotylendons
D. Many cotylendons.

Answer: B

## 357. Formation of embryo sac is

A. Megasporogenesis
B. Megagametogenesis
C. Microgametogenesis
D. None of the above.

Answer: B
358. A unique phenomenon observed in the embryo sac of angiosperms is
A. Fusion of gametes
B. Double fusion
C. Triple fusion
D. Double fertilization.

Answer: D
(D) Watch Video Solution
359. Zygote of Capsella bursa-pastoris undergoes
A. Longitudinal division
B. Equal transverse division
C. Unequal transverse division
D. Oblique division.

## Answer: C

D Watch Video Solution
360. Pollen tube deposits its inclusions in
A. Central cell
B. Synergids
C. Oosphere

D. Antipodal cells.

Answer: A

## 361. Suspensor is component off

A. Developing embryo

B. Mature embryo

C. Endosperm
D. Germinated embryo.

Answer: A
362. A number of fruitlets (seeds) of Strawberry are removed randomly during development of fruit
A. Normal fruit with fewer seeds is formed
B. Distorted fruit with under-developed
portionns is formed
C. A seedless fruit is formed
D. Fruit stops development.

Answer: B
363. In a young anther the four rows of cells which later produce pollen are called
A. Antheridium
B. Archesporium
C. Tapetum
D. Zoosporangium.

Answer: B
364. Wheat root cells have 42 chromosomes.

The number of chromosomes in a cell of pollen grain is
A. 14
B. 21
C. 28
D. 42

Answer: B
365. Embryo sac is
A. Microgametophyte
B. Microsporangium
C. Megagametophyte
D. Megasporangium.

Answer: C

- Watch Video Solution

366. Polygonum type of embryo sac is
A. 8-nucleate
B. 16- nucleate
C. 24-nucleate
D. 32-nucleate.

Answer: A
( Watch Video Solution
367. Tapetum occurs in
A. Anther wall
B. Ovary wall
C. Male gametophyte
D. Female gametophyte.

Answer: A

D Watch Video Solution
368. 8-nucleate embryo sac is
A. Monosporic
B. Bisporic
C. Tetrasporic
D. All the above.

## Answer: D

## D Watch Video Solution

369. If meiosis occurs inside pollen grain and egg nuclei, it will be
A. Zygotic meiosis
B. Gametic meiosis
C. Sporic meiosis
D. None of the above.

Answer: B

- Watch Video Solution

370. Malocophily is observed in
A. Ruppia
B. Zostera

## C. Lemma

D. Bignonia.

## Answer: C

- Watch Video Solution

371. Pollen grains are nongreen due to
A. Absence of plastids
B. Degeneration of plastids

# C. Conversion <br> chromoplasts 

D. Attraction of vectors.

## Answer: C

## D Watch Video Solution

# 372. Multinucleate condition is present in 

A. Quiescent centre

B. Maize

## C. Meristematic tissue

## D. Liquid endosperm of Coconut.

## Answer: D

## D Watch Video Solution

373. Entry of pollen tube throuh the end opposite to micropyle is
A. Porogamy
B. Chalazogamy

## C. Mesogamy

D. Syngamy.

## Answer: B

## D Watch Video Solution

## 374. In Capsella, embryo sac is

A. Haploid

B. Diploid

C. Triploid
D. Polyploid.

Answer: A

## D Watch Video Solution

375. In polygonum type of embryo sac, the cells are
A. Haploid
B. Diploid
C. Both A and B

## D. Polyploid.

## Answer: C

## D Watch Video Solution

376. Pollenkitt is formed from
A. Endothecium
B. Middle layers
C. Microspore mother cell
D. Tapetum.

## Answer: D

## - Watch Video Solution

377. Free nuclear division occurs in
A. Flower
B. Gametes
C. Endosperm
D. Fruit.
378. Sexual reproduction of flowering plants was discovered by
A. Camerarius
B. Nawaschin
C. Strasburger
D. Maheshwari.

Answer: A
379. Egg apparatus of angiosperm consists of
A. Egg and antipodals
B. Polar nuclei
C. Egg and synergids
D. Egg.

Answer: C
( Watch Video Solution
380. During formation of pollen grains, a microspore mother cell undergoes
A. One meiotic division
B. One metotic division
C. One meiotic and one mitotic division
D. One meiotic and two mitotic divisions.

Answer: A

D Watch Video Solution
381. Route used by pollen tube for entering ovule is
A. Integument
B. Micropyle
C. Chalaza
D. Any of the above.

## Answer: D

382. Number of chromosomes is 24 in nucellus.

Number of chromosomes in microspore mother cell would be
A. 36
B. 30
C. 24
D. 12

Answer: C

D Watch Video Solution
383. Heaping of earth around base of stem in

## Potato is meant for

A. Preventing exposure of roots
B. Providing extra support to delicate stem
C. Inducing development of more auxiliary
shoots
D. Making more water availabel.

## Answer: C

384. When vegetative cell of zygote form embryo it is called
A. Apomixis
B. Adventitive polyembryony
C. Apospory
D. Diploid polyembryony.

Answer: B

D Watch Video Solution
385. Formation of an organism from a single,
male gamete without fusion with egg is an example of
A. Parthenogenesis
B. Apogamy
C. Apospory
D. Parthenocarpy.

## Answer: A

386. In a grafted plant, stock has 48 chromosomes while scion has 24
chromosomes. The chromosome number for root cells and eggs are
A. 48 and 24
B. 24 and 24
C. 24 and 12
D. 48 and 12 .

## Answer: D

387. Given below are assertion and reason.

Point out if both are true and reason is correct
explanation (A), both are true but reason is not correct explanation (B), assertion is true but reason is wrong (C) and both are wrong
(D). Assertion. In apomixis, plants of new genetic sequences are produced. Reason. In apomixis, individuals of same genetic sequence meet.
A. A
B. B
C. C
D. D.

## Answer: D

## - Watch Video Solution

388. Formation of embryo directly from nucellus and integument is
A. Adventitive polyembryony
B. Apospory
C. Apogamy
D. Apomixis.

Answer: A

- Watch Video Solution

389. Anemophily occurs in
A. Grasses
B. Legumes

## C. Euphorbia

D. Annona.

Answer: A

- Watch Video Solution

390. Malacophily is pollination by
A. Insects
B. Birds
C. Bats

## D. Snails and slugs.

## Answer: D

## D Watch Video Solution

391. Pollination by ants is

A. Malacophily

B. Myrmecophily
C. Entomophily
D. Ornithophily.

Answer: B

## D Watch Video Solution

392. Maturation of anthers and stigma at the same times is
A. Allogamy
B. Xenogamy
C. Homogamy
D. Dichogamy.

## - Watch Video Solution

393. Some plants having pleasant ordour and attactive colours for
A. Entomophily
B. Hydrophily
C. Anemophily
D. All the above.

## D Watch Video Solution

394. Night blooming flowers are generally
A. Light weight
B. Scented
C. Brightly coloured
D. Bloom in clusters.
395. Heterozygosity is produced following
A. Xenogamy
B. Geitonogamy
C. Autogamy
D. Cleistogamy.

Answer: A
396. Cross pollination is preferred over self pollination because it
A. Produces better offspring
B. Forms new varieties
C. Induces parthenogenesis
D. Is economical.

Answer: A

D Watch Video Solution

## 397. Anemophily occurs in

A. Salvia

B. Vallisneria

C. Coconut
D. Bottle Brush.

Answer: C

## D Watch Video Solution

398. Developing pollen obtains its nutrition

## from

A. Endothecium
B. Tapetum
C. Epidermis
D. Middle layer.

Answer: B

D Watch Video Solution

# 399. Pollination in Lotus is carried out by 

A. Wind
B. Water
C. Insects
D. All the above.

Answer: C
(D) Watch Video Solution
400. In Casuarina fertilisation takes place through
A. Mesogamy
B. Porogamy
C. Chalazogamy
D. Apogamy.

Answer: C
(D) Watch Video Solution
401. Intraspecific incompatibility is overcome by
A. Mixed pollenation
B. Self pollination
C. Wetting of anthers
D. Wetting of stigmas.

Answer: A

D Watch Video Solution
402. Triple fusion involves fusion of
A. Two male gametes and one egg
B. Two eggs and one male gamete
C. Two male gametes and secondary
nucleus
D. One male gamete and two polar nuclei.

## Answer: D

D Watch Video Solution
403. Anemophilous plants have
A. Sticky stigmas
B. Feathry stigmas
C. Prominent nectaries
D. Colourful flowers.

Answer: B

- Watch Video Solution

404. Pollnation by birds is

# A. Malacophily 

B. Ornithophily
C. Chiropterophily
D. Myrmecophily.

## Answer: B

D Watch Video Solution
405. Gloriosa superba exhibits
A. Heterostyly

## B. Self sterility

C. Herkogamy
D. Cleistogamy.

## Answer: C

## D Watch Video Solution

## 406. Cross pollination is

A. Cleistogamy
B. Autogamy
C. Allogamy
D. Chasmogamy.

## Answer: C

## D Watch Video Solution

407. Contrivance for self pollination is
A. Cleistogamy
B. Bisexuality
C. Homogamy
D. All the above.

## Answer: D

## D Watch Video Solution

408. Endosperm of flowering plants develops
from
A. Haploid nucleus
B. Diploid nucleus
C. Triploid nucleus

## D. Tetraploid nucleusl.

## Answer: C

## - Watch Video Solution

409. First haploid cell of female gameophyte is
A. Functional megaspore
B. Microspore mother cell
C. Megaspore mother cell
D. None of the above.

Answer: A

## D Watch Video Solution

410. Effect of pollen on character of pericarp
and seed coat is
A. Xenia
B. Metaxenia
C. Ruminate endosperm
D. Chimera.

Answer: B

## - Watch Video Solution

411. Xenia nd metaxenia are related to
A. Only endosperm

B. Xylem and phloem

C. Pollen and endosperm
D. Pollen culture.

Answer: C

## - Watch Video Solution

412. Give below are assertion and reason. Point out if both are true and reason is correct explanation (A), both true but reason is not correct explanation (B), assertion is true but reason is wrong (C), both are wrong (D). Assertion. Megaspore mother cell undergoes meiosis to produce four megaspores. Reason.

Megaspore mother cells and megaspores both are haploid
A. A
B. B
C. C
D. D.

Answer: C

- Watch Video Solution

413. Function of guiding and attracting pollen
tube is done by
A. Egg cell
B. Filiform apparatus
C. Antipodal cells
D. Secondary nucleus.

## Answer: B

## D Watch Video Solution

414. In angiosperms, triple fusion produces
A. Polar nucleus
B. Secondary nucleus
C. Primary endospermic nucleus
D. Zygotic nucleus.

## Answer: C

## D Watch Video Solution

415. In flowering plants archesporium gives rise to
A. Wall of spoangium

# B. Both wall and sporangium 

C. Wall and tapetum
D. Tapetum and sporogenous cells.

## Answer: B

## D Watch Video Solution

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

## A. Cutin

B. Suberin
C. Sporopollenin
D. Callose.

## Answer: C

## D Watch Video Solution

417. The plant part which consists of two generations one within the other is
A. Seed
B. Germinated pollen grain
C. Embryo
D. Unfertilised ovule.

## Answer: D

D Watch Video Solution
418. Wind pollinated flowers are
A. Small, scented and colourless

# B. Small, nonscented and colourless 

C. Big, scented and coloured
D. Big, nonscented and colourless.

Answer: B

D Watch Video Solution
419. Radicle end of embryo is towards

A. Hilum

B. Chalaza

## C. Funicle

D. Micropyle.

## Answer: D

## - Watch Video Solution

420. Intraspecific cross pollination is
A. Allogamy
B. Geitonogamy
C. Xenogamy
D. Autogamy.

## Answer: C

## D Watch Video Solution

421. Ovule integument gets transformed into
A. Seed
B. Seed coat
C. Fruit cell
D. Cotyledons.

Answer: B

## - Watch Video Solution

422. In $82 \%$ of angiosperm families, ovule is
A. Anatropous
B. Orthotropous
C. Amphitropous
D. Circinotropous.

# 423. Tapetal cells of stamens are 

A. Diploid uninucleate
B. Tetraploid binucleate
C. Hexaploid tetranucleate
D. Polyploid multinucleate.

## Answer: D

424. Vegetative fertilization, which involves formation of endosperm, is fusion of
A. One male gamete with diploid secondary nucleus
B. Two vegetative cells
C. Two male gametes
D. Female gamete with secondary nucleus.

Answer: A
425. Largest cell of the ovule is
A. Megaspore mother cell
B. Antipodal cell
C. Central cell
D. Size of cells variable.

Answer: C
( Watch Video Solution

## 426. Match and find the correct combination

(a) Pollen grains
(d) Microsporangia
(b) Pollen sacs
(e) Microspores
(c) Stamens
(f) Microsporophylls

## D Watch Video Solution

427. Entry of pollen tube through chalazal end is
A. Syngamy
B. Porogamy
C. Mesogamy

## D. Chalazogamy.

## Answer: D

## D Watch Video Solution

428. In oogamy. Fertilization involves
A. Small, nonmotile female gamete and
large motile male gamete
B. Large nonmotile female gamete and
small motile male gamete.

# C. A nonmotile female gamete and a small 

nonmotile male gamete
D. A large motile female gamete and a small nonmotile male gamete.

## Answer: B

## D Watch Video Solution

429. Given below are assertion and reason.

Point out if both are true with reason being correct explanation (A), both are true but
reason is not correct explanation (B), assertion
is true but reason is wrong (C) and both are wrong (D) . Assertion. Insects visit flowers to gather honey. Reason. Attractionn to flowers prevents the insects from damaging other parts.
A. A
B. B
C. C
D. D
430. The pollen tube usually enters the embryo sac:
A. Through one of the synergids
B. Directly pentrates the egg
C. Between one synergid and central cell
D. By knocking of antipodal cell.

Answer: A
431. Rarely among angiosperms in pollen grains influenced the endosperm this is called as
A. Metaxenia
B. Nemec phenomenon
C. Xenia
D. Mesogamy.
432. In flowering plants, meiosis takes place during
A. Pollen grain formation
B. Seed formation
C. Gamete formation
D. Seed germination.

## Answer: A

# 433. Development of seed frim an unfertilized 

 egg isA. Vivipary
B. Parthenocarpy
C. Aporgamy
D. Apospory.

Answer: C
434. Match the columns with correct combination of endosperm chromosomes

Column I<br>(a) Pisum sativum<br>(b) Oryza sativa<br>(c) Nicotiana tabacum<br>(d) Allium cepa<br>Column II<br>(i) 72<br>(ii) 24<br>(iii) 60<br>(iv) 36<br>(v) 21

## D Watch Video Solution

435. Fibrous thickenings of hygroscopic nature are found in which part of anther walls?
A. epidermis
B. Tapetum
C. Middle layer
D. Endothecium.

## Answer: D

## D Watch Video Solution

436. The process in which haploid embryo is
formed from haploid egg without fertilization
is called :
A. Apospory
B. Aposgamy
C. Agamospermy
D. Vegetative reproduction

## Answer: C

## D Watch Video Solution

437. Which of the following statements is/are correct ?
(i) Endothecium lies below epidermis
(ii) Fusion of egg with male gamete is called apogamy
(iii) Synergids are haploid.
(iv) The point at which funicle touches the ovule is raphe.
A. a and d only
B. a and b only
C. b and d only
D. a and c only.

Answer: D
438. The process of transfer of pollen grains
from anther to stigmatic surface of the flower with the help of water is called
A. Anemophily
B. Hydrophily
C. Zoophily
D. Ornithophily.
439. Double fertilization results in the production of
A. Haploid nucleus
B. Diploid nucleus
C. Triploid nucleus

D. Tetraploid nucleus.

Answer: C

# 440. Development of seed frim an unfertilized 

 egg isA. Parthenocarpy
B. Sporophytic budding
C. Polyembryony
D. Micropropagation.

Answer: A
441. which of the following statements is true with reference to cross pollination in angiosperms?
A. It most often results in higher yield of plants
B. It occurs only in unisexual flowers
C. It can fail to occur due to distance barrier

## D. It requires production of large nuumber

 of pollen grains.
## Answer: D

## D Watch Video Solution

442. In a type of apomixis known as adventure embryony embryos develop directly from the
A. Nucellus or integument
B. Zygote
C. Synergids or antipodals of embryo sac
D. Accessory embryo sacs in the ovule.

Answer: A

## D Watch Video Solution

443. Pollen grains are produced in
A. Anther
B. Pollen sac
C. Filament
D. Stigma.

Answer: B

## D Watch Video Solution

444. For self pollination flower must be:
A. Asexual
B. Monosexual
C. Unisexual
D. Bisexual.

## Answer: D

## - Watch Video Solution

445. Which is diploid structure
A. Pollen grains
B. Egg
C. Megaspore
D. MMC.

# 446. Ubisch bodies are secreted by 

A. Ovule
B. Tapetum
C. Both A and B
D. None of the above.

Answer: B
447. In Cucumber, pollen tube enters embryo sac through
A. Integuments
B. Micropyle
C. Endosperm
D. Chalaza.

Answer: A

- Watch Video Solution

448. The arrangement of the nuclei in a normal embryo sac in the dicot plants is
A. $3+3+2$
B. $2+4+2$
C. $3+2+3$
D. $2+3+3$.

Answer: C

D Watch Video Solution
449. What would be the number of
chromosomes in the cell of the aleurone layer
in a plant species with 8 choromosomes in its
synergids
A. 8
B. 16
C. 24
D. 32

Answer: C
450. Parthenocarpic fruits are produced by
A. Treating plants with phenyl mercuric acetate
B. Treating plants with low concentrations
of gibberellic acid and auxin
C. Removing androecium of flowers before
release of pollen grains
D. Raising plants from vernalised seeds.

Answer: B

## D Watch Video Solution

451. From which cell of embryo, plumule is produced
A. Apical octant
B. Proembryo
C. Hypophysis
D. Micropylar octant.

## - Watch Video Solution

452. Cleistogamous flowers are

A. Wind pollinated

B. Insect pollination

C. Bird pollinated
D. Self pollination.
453. In the angiosperm ovule, central cell of the empryo sac, prior to the entry of pollen tube, contains
A. Two haploid polar nuclei
B. One diploid secondary nucleus
C. Single haploid nucleus
D. One diploid and one haploid nuclei.
454. Plants of which one of the following groups of genera are pollinated by the same agency
A. Triticum, Cocos, Mangifera
B. Ficus, Kigelia, Casuarina
C. Bombax, Butea, Bauhinia
D. Salvia, Morus, Euphorbia.

## - View Text Solution

Column I
(a) Zoophily
(b) Ornithophily
(c) Entomophily
455. (d) Chiropterophily 4. Pollination by animals

Match the column
A. $a-3, b-2, c-1, d-4$
B. $a-1, b-2, c-3, d-4$
C. $a-4, b-1, c-2, d-3$
D. $a-4, b-2, c-3, d-1$

## - Watch Video Solution

456. In angiosperms endosperm is formed by
A. Division of fused polar nuclei
B. Free nuclear division of megaspore
C. Division of fused synergids and male gamete

## D. Division of fused polar nuclei and male

## gamete.

## Answer: D

## D Watch Video Solution

457. Ruminate endosperm is commonly found in seeds of
A. Cruciferea
B. Euphorbiaceae

## C. Asteraceae

D. Annonaceae.

## Answer: D

## D Watch Video Solution

458. What would be number of chromosomes
in aleurone layer if megaspore mother cell contains 10 chromocomes
A. 10
B. 20
C. 15
D. None of the above.

Answer: C

D Watch Video Solution
459. Fusion of a male gamete with agg in embryo sac is
A. Autogamy

## B. Synagamy

C. Double fertilisation
D. Triple fusion.

Answer: B

## D Watch Video Solution

460. Identify the wrong statement regarding post fertilisation development
A. Ovary wall develops into perciarp
B. Outer integument of ovule develops into tegmen
C. Fusion nucleus (triple nucleus) develops
into endosperm
D. Ovule develops into seed

Answer: B

- Watch Video Solution

461. These processes are necessary for the complete development of male gametophyte
from pollen mother cell
A. Two meiotic divisions and one mitotic division
B. Two mitotic divisions
C. One meiotic and two mitotic divisions
D. One meiotic cell division and one mitotic
cell division.

## Answer: C

## - Watch Video Solution

462. Radicle is produced from
A. Apical octant
B. Micropylar octant
C. Vegetative cell
D. Hypophysis.
463. Male gametes are formed by
A. Pollen cell
B. Generative cell
C. Pollen tube cell
D. Pollen mother cell

Answer: B

# 464. Pericarp of fruit develops from 

A. Wall of overy
B. Nucellus
C. Funicle
D. Seed coat.

Answer: A

D Watch Video Solution
465. Embryo sac develops from megaspore mother cell through
A. 1 meiosis and 2 mitoses
B. 1 meiosis and 3 mitoses
C. 1 meiosis and two meioses
D. 2 meioses and 2 mitoses.

Answer: B

D Watch Video Solution

# 466. Versatile anthers are connecter with 

A. Entomophily
B. Malacophily
C. Ornithophily

D. Anemophily.

Answer: D

D Watch Video Solution
467. In the given diagram name of the parts $A$,

## $B, C, D$ and $E$


A. a-intine, b-exine, c-germpore, dgenerative cell, e-vegetative cell
B. a- exine, b-intine, c-vegetative cell, dgermpore, e-generative cell
C. a-germpore, d-exine, e-vegetative cell
D. a- germpore, b-generative cell, c- exine, dintine, e-vegetative cell.

## Answer: B

## D Watch Video Solution

468. if root of a flowering plant has 24
chromosome ,then its gamete has many chromosomes ?
A. 4
B. 8
C. 12
D. 24

Answer: C

- Watch Video Solution

469. Raphe is
A. Ridge formed by fused funiculus
B. Funicle attached to ovule
C. Part of nucellus
D. Part of flower.

Answer: A

D Watch Video Solution
470. What statement is true about microspore of angiosperms
A. Resultant of mitotic division

# B. First cell of gamophytic generation 

C. Resultant of double fertilization.
D. First cell of endosperm.

## Answer: B

## D Watch Video Solution

471. if the number of chromosomes in root cells is 14 , what will be the number of chromosomes in synergids cells of an ovule of that parent
A. 28
B. 21
C. 14
D. 7

## Answer: D

## D Watch Video Solution

472. Which one of the following is surrounded by a callose wall
A. Male gamete
B. Pollen grain
C. Egg
D. Microspore mother cell.

## Answer: D

D Watch Video Solution
473. Xenogamy is
A. Pollination between two flowers of two
different plants
B. Pollination between two different
flowers of same plant and same branch
C. Pollination between anther and stigma
of same flower

## D. A mechanism of parthenocarpy.

## Answer: A

474. Match the columns and select the correct combination

|  | Column I |  | Column II |
| :---: | :--- | :--- | :--- |
| $a$ | Ovule | 1. | Endosperm |
| $b$ | Funiculus | 2. | Aril |
| $c$ | Nucellus | 3. | Seed |
| $d$ | Polar nuclei | 4. | Perisperm |

## - Watch Video Solution

475. Given below are assertionn and reasonn.

Point out if both are true with reason being correct explanation (A), both true but reason is not correct explanation (B), assertion is true
but reason is wrong (C), both are wrong (D).

Assertion. 7 celled, 8 nucleate and monosparic embryo sac is called Polygonum type of embryo sac. Reason. It was discovered by Hofmeistter for the first time in Polygonum
A. A
B. B
C. C
D. D.

Answer: C
476. Choose the mismatched option
A. wind - Cannabis - anemophily
B. Water - Zostera - hydrophily
C. Insects - Salvia - entomophily
D. Birds - Adansonia - ornithophily

Answer: D

## D Watch Video Solution

477. Select the correct order of endosperm types.


## - Watch Video Solution

478. Secondary nucleus is formed by
A. Egg apparatus

# B. Fusion of two polar nuclei 

C. degenerating synergid
D. Antipodal cells.

Answer: B

- Watch Video Solution

479. Suspensor of embryo is formed by
A. Basal cell
B. Apical cell

## C. Terminal cell

D. Hypophysis.

Answer: A
( Watch Video Solution
480. The ovary after fertilization is converted into
A. Embryo
B. Fruit
C. Endosperm
D. Seed.

Answer: B

## D Watch Video Solution

481. Unisexuality of flowers prevents
A. Geitonogamy but not xenogamy
B. Autogamy and geitonogamy
C. Autogamy but not geitonogamy

# D. Both geitonogamy and xenogamy. 

## Answer: C

## - Watch Video Solution

482. What does the filiform apparatus do at
the entrance into or Function of filiform apparatus is to
A. Brings about opening of pollen tube
B. Guides pollen tube form synergid to egg
C. Helps in the entry of pollen tube into
synergid
D. Prevents entry of more than one pollen
tube into embryo sac.

## Answer: C

D Watch Video Solution
483. Which one of the following is resistant action
A. Pollen exine
B. Leaf cuticle
C. Cork
D. Wood fibre.

Answer: A

D Watch Video Solution
484. Which pair has haploid nature
A. Nucellus and antipodal cells
B. Egg nucleus and secondary nucleus
C. Megaspore mother cell and antipodal cells
D. Egg cell and antipodal cells.

## Answer: D

D Watch Video Solution
485. One advantange of cleistogamy is
A. It leads to greater geneater genetic diversity
B. Seed dispersal is more efficient and wide
spread
C. Each visit of pollinator brings hundreds
of pollen grains
D. Seed set is not dependent upon pollinators.

Answer: D
486. A typical angiospermic embryo sac is 8 nucleate and
A. Single celled
B. Seven celled
C. Eight celled
D. Four celled.

Answer: B

- Watch Video Solution

487. Assured seed set is possible even in absence of pollinators when flower is
A. Xenogamous
B. Chasmogamous
C. Geitonogamous
D. Cleistogamous.

## Answer: D

(D) Watch Video Solution

# 488. Ina mature embryo sac the central cell is 

A. Single nucleate
B. Binucleate
C. Four nucleate
D. Eight nucleate.

Answer: B

D Watch Video Solution
489. Endosperm is completely consumed by
the developing embryo in
A. Pea, Bean and Groundnut
B. Maize, Bean and Castor
C. Castor, Pea and Groundnut
D. Maize, Bean and Pea.

Answer: A

## D Watch Video Solution

490. Formation of liquid endosperm in coconut takes place because:
A. Karyokinesis is not followed by
cytokinesis
B. Karyokinesis is followed by cytokinesis
C. Formation of liquid endosperm is not
dependent upon karykinesis and
cytokinesis
D. None of the above.
491. Which is not true
A. Pollen grains are released from anthers
at 2-celled stage
B. Sporogenous cell directly behaves as
megaspore mother cell
C. Megaspore divides twice to form an 8-
nucleate embryo sac
D. Egg and synergids always lie near micropylar end.

## Answer: C

## - Watch Video Solution

492. Consider the following statements and choose the correct option

The genetic consitution of a plant is unaffected in vegetative propagation
(ii) Rhizome in ginger serves as an organ of
vegetative reproduction
(iii) Totipotency of cells enables us to micropropagate plants
A. i and ii correct
B. i,ii,iii all correct
C. iii alone true
D. ii and iii are true.

Answer: B

- Watch Video Solution

493. There are 10 flowers in one individual
plant of Crotalaria. In each microporangium of
every stamen of all the flowers there are 30
microspore mother cells. How many pollen
grains are formed from that plant
A. 4000
B. 10000
C. 24000
D. 48,000 .

# 494. Monocot seed generally shows 

A. Epigeal germination
B. Hypogeal germination
C. Both A and B
D. None of the above.

Answer: B
495. Pollen grains have spiny exine to aid in
A. Entomophily
B. Anemophily
C. Ornithophily
D. Cheiropterophily.

Answer: A

# 496. A non-nutritive structure is 

A. Tapetum

B. Endosperm

## C. Integument

D. Palisade parenchyma.

Answer: C
497. Type of divisions that occurs during formation of megaspore is
A. Meiosis
B. Mitosis
C. Meiosis followed by mitosis
D. Mitosis followed by meiosis.

Answer: A

D Watch Video Solution
498. Number of gametes produced by a male gametophyte of flowering plant is
A. Four
B. One
C. Three
D. Two.

Answer: D

D Watch Video Solution
499. Pollen grain is related to embryo sac as
A. Sperm is to the female gametophyte
B. Sperm is to the egg
C. Male gametophyte is to the egg
D. Male gametophyte is to the embryo sac.

## Answer: D

## D Watch Video Solution

500. Development of microsporangium in angiosperms and gymnosperms is of typical:
A. Eusporangiate type
B. Leptosporangiate type
C. Monosporic type
D. Tetrasporic type.

Answer: A
(D) Watch Video Solution
501. A typical dicotylendonous embryo consists of
A. Radicle only
B. Radicle, embryonal axis and cotyledons
C. Cotylendons only
D. Embryo axis only.

Answer: B

- Watch Video Solution

502. Select the incorrect statement regarding
angiosperm
A. Pollen grain is the first cell oof male gametophyte
B. Megaspore is diploid
C. Megaspore is the first cell of female gametophyte
D. All of above.

Answer: B
503. Which of the following statements about sporopollenin is wrong
A. Exine is formed of sporopollenin
B. Sporopollenin is not degraded by any known enzyme
C. Sporopollenin occurs in the area of germ pores only

# D. Sporopollenin is most resistant organic 

 material.
## Answer: C

## D Watch Video Solution

504. In the diagram given above, parts labelled as 'A', 'B', 'C', 'D', 'E' and 'F' are respectively


## - Watch Video Solution

505. Apomictic embryos in citrus arise from
A. Matermal sporophytic tissue in ovule
B. Antipodal cells
C. Diploid cells
D. Synergids.

Answer: A

D Watch Video Solution
506. Wind pollinated flowers are
A. Small, brightly coloured, producing large number of pollen grains
B. Small, producing large number of dry pollens
C. Large producing abundant nectar and pollen
D. Small producing nectar and dry pollen.

## Answer: B

507. Which of the following is correct chronological order of the division taking place through an apical or embryo cell to a sixteen cell stage

# A. Vertical division__ Transverse division 

Division at right angles to both thhe privious divisions___ Periclinal division B. Vertical division___ Vertical division at right angles to the first
division___Division at right angles to
both the privious divisions
divisions
C. Vertical division ___ Transverse division
___ Periclinal division
D. Vertical division___ Vertical division at
right angles to the first division___ at
right angles to the first division Transverse division___ Periclinal division.

## Answer: D

508. Type of ovule present in Opuntia is
A. Amphitropous
B. Campylotropous
C. Circinotropous
D. Orthotropous.

Answer: C
( Watch Video Solution
509. Number of male gametes formed 16 microspore mother cells is
A. 128
B. 64
C. 32
D. 16

Answer: A
( Watch Video Solution

# 510. Microspore mother cell forms 

A. Microsporangium

B. Pollen sac

C. Female gametophyte
D. Pollen grains.

Answer: D

## 511. Syngamy produces

A. Embryo
B. Endosperm
C. Perisperm

D. Both A and B.

Answer: A
512. Which one produces embryo sac
A. Megaspore mother cell
B. Megaspore
C. Microspore
D. Embryo cell.

Answer: B
513. Part of suspensor that helps in food absorption is
A. Hypophysis
B. Haustorium
C. Basal cell
D. Intermediate cell.

Answer: B

D Watch Video Solution
514. Thread-like pollen without exine are found in
A. Hydrophily
B. Entomophily
C. Anemophily
D. Chiropterophily.

Answer: A

D Watch Video Solution

## 515. Clones do not appear during

A. Cuttings
B. Budding
C. Grafting
D. Seed propagation.

Answer: D
516. In porogamy, pollen tube enters ovules
through
A. Micropyle
B. Chalazal end
C. Ovary wall
D. Integument.

Answer: A
(D) Watch Video Solution
517. Cleistogamous flower is found in
A. Tobacco
B. Mirabilis
C. Viola
D. None of the above.

Answer: C
( Watch Video Solution
518. The only type of pollination which during pollination brings genetically different types of pollen grains to the stigma, is:
A. Xenogamy
B. Geitonogamy
C. Chasmogamy
D. Autogamy.

Answer: A

D Watch Video Solution
519. Gametogenesis in haploid plants involves

A. Binary fission

B. Meiosis

C. Mitosis
D. Amitosis.

Answer: C

## 520. Which is example of parthenocarpic fruit

A. Strawberry

B. Cashew

C. Banana

D. Apple.

Answer: C

# A. Pollen grains remain viable for several 

 months because of sporopollenincovering
B. No enzyme can degrade sporopollenin
C. Pollen grains are well represented in
fossil strata due to sporopollenin
D. Pollen wall has cavities containing
proteins.

## Answer: A

## D Watch Video Solution

522. Study the following statements and select the correct option.
(i) Tapetum nourishes the developing pollen grains.
(ii) Hilum represents the junction between ovule and funicle.
(iii) In aquatic plants such as water hyacinth
and waterlity, pollination occurs by water.
(iv) The primary endosperm nucleus is triploid.
A. a, b correct, c, d incorrect
B. a, b, d correct, c incorrect
C. b, c, d correct , a incorrect
D. a, d correct, b, c incorrect.

## Answer: B

## D Watch Video Solution

## 523. Identify the parts labelled $a, b$ and $c$



## - Watch Video Solution

524. In which pollination is autogamous
A. Chasmogamy
B. Geitonogamy
C. Cleistogamy
D. Xenogamy.

## Answer: C

## - Watch Video Solution

525. Nucellar polyembryony is reported in
species of

## A. Triticum

B. Brassica
C. Citrus
D. Gossypium.

## Answer: C

## - Watch Video Solution

526. In angiosperms functional megaspore develops into
A. Endosperm
B. Embryo sac
C. Ovule covering
D. Pollen sac.

Answer: B

## D Watch Video Solution

527. Endosperm is not completely consumed by developing embryo in
A. Gram
B. Bean

## C. Castor

D. Pea.

## Answer: C

## D Watch Video Solution

528. A characteristic of tapetum is
A. Multilayered
B. Multinucleate
C. Stores food
D. Nourishes megaspore.

Answer: B

## - Watch Video Solution

529. Cleistogamy does not require anthesis
because
A. No pollination anent is required
B. It assures heterozygosity
C. it allows xenogamy
D. it favours insect pollination.

## Answer: A

## D Watch Video Solution

530. Given below are assertion and reason.

Point out if both are true with reason being
correct explanation (A), both are true but reason is not correct explanation (B), assertion is true but reason is wrong (C) and both are
wrong (D) . Assertion. In some species of asteraceae and poaceae, seeds are formed without fertilization Reason. Formation of

fruit without fertilization is called parthenocarpy

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

Answer: B
531. Both, autogamy and geitonogamy are prevented in
A. Papaya
B. Cucumber
C. Castor
D. Maize.

Answer: A

- Watch Video Solution

532. Even in absence of pollinating agents seed-setting is assured in
A. Zostera
B. Fig
C. Salvia
D. Commelina.

## Answer: D

## 533. The coconut water and the edible part of

 coconut are equivalent to or the morphological nature of the edible part of coconut isA. Endosperm
B. Embryo
C. Endocarp
D. Mesocarp.

Answer: A

## 534. Xenogamy is essentially a type of

A. Autogamy
B. Homogamy
C. Allogamy
D. Cleistogamy.

## Answer: C

## 535. What is the function of germ pore

A. Emergence of radicle
B. Emergence of pollen tube
C. Release of male gametes

## D. Absorption of water for seed

germination.

Answer: B

D Watch Video Solution
A. Vegetative cell is larger than generative cell
B. Intine is made of cellulose and pectin
C. Pollen grains of some plants remain
viable for months
D. Double fertilization is absent where
pollen is shed in 2-celled stage.

Answer: D
537. Plants with ovaries having only one ore a
few ovules are generally pollinated by
A. Wind
B. Bees
C. Birds
D. Butterflies.

Answer: A

- Watch Video Solution


# 538. Innermost microsporangial wall layer that 

 nourishes pollen grains isA. Endothecium
B. Tapetum
C. Endodermis
D. Sporogenous tissue.

## Answer: B

## 539. Which plant product is the hardest

A. Suberin

B. Lignin
C. Sporopollenin
D. Cutin.

Answer: C
540. Entomophilous flowers are related to
A. Honey bees
B. Wind
C. Water

D. Hairy Mammals

Answer: A
541. Remnants of nucellus present in seed of Black Pepper and Beet are called
A. Pericarp
B. Periderm
C. Endosperm
D. Perisperm.

Answer: D

D Watch Video Solution
542. Which of the following events takes place after double fertilization
A. Pollen grain germinates over stigma
B. Pollen tube enters the embryo sac
C. Two male gametes are discharged into
embryo sac
D. PEN develops into endosperm

## Answer: D

- Watch Video Solution

543. Match the columns and choose the

## correct combination

## I

II

1. Funicle
a. Small opening of ovule
2. Integuments $b$. Stalk of ovule
3. Chalaza c. Protective envelopes of ovule
4. Hilum d. Junction part of ovule and stalk
5. Micropyle e. Basal part of ovule
A. 1-b,2-c,3-e,4-d,5-a
B. $a-1, b-c, 3-b, 4-d, 5-e$

> C. 1-b,2-c,3-a,4-d,5-e
D. 1-c,2-d,3-e,4-a,5-c

## - Watch Video Solution

544. Based on entry of pollen tube into ovule, which one is mesogamy
A. Through micropyle
B. Through placenta and funiculus
C. Through integument

# D. Entry through funiculus, chalaza and 

 embryo sac from egg apparatus end.
## Answer: C

## D Watch Video Solution

545. Match the columns and choose the

## correct combination

I
II
(a) Cleistogamy ( $m$, Insect pollination
(b) Geitonogamy (n) Bud pollination
(c) Entomophily (o) Pollination between flowers of the same plant
(d) Xenogamy (p) Wind pollination
(q) Cross pollination.
A. a-m,b-q,c-n,d-o
B. $a-n, b-o, c-m, d-q$
C. $a-q, b-p, c-o, d-n$
D. $a-o, b-m, c-q, d-n$

Answer: B

## D Watch Video Solution

546. if the number of chromosome in root cell is 14 , then what will be the chromosome number in syergids ?
A. 14
B. 21
C. 7
D. 28

Answer: C

## - Watch Video Solution

547. Sporopollenin is formed by
polymerisationn of
A. Fat and phenos
B. Fats and esters
C. Carotenoids and fat
D. Carotenoid and esters.

Answer: A

- Watch Video Solution

548. Commonly the pollen tube enters the ovule through
A. Hilum
B. Chalaza
C. Funcile
D. Micropyle.

Answer: D

D Watch Video Solution
549. Development of an embryo sac from a nucellar cell is
A. Diplospory
B. Apospory
C. Apogamy
D. Adventitive embryony.

Answer: B

- Watch Video Solution

550. A seed is formed from
A. Ovule
B. Embryo
C. Embryo sac
D. Ovary.

Answer: A

## D Watch Video Solution

551. What are chromosome number in thhe following respectively (i) Synergid of

Gossypium (ii) Leaf cells in Allium
(iii)

Endosperm of Saccharum
A. $48,16,36$
B. $52,26,32$
C. $26,16,120$
D. $48,96,24$.

Answer: C

## D Watch Video Solution

552. Identify the correct statement
A. Tetrasporic embryo sac occurs in

Pepromia
B. Stamens are epipetalous in Grevillea
C. Cross pollination is Kigellia pinnata
takes place by snails
D. In Scrophularia androecium matures
earlier than gynoecium.

Answer: A

- Watch Video Solution


## 553. Perisperm differs from endosperm in

A. Its formation by fusion of secondary nucleus with several sperms
B. Being a haploid tissue
C. having no reserve food
D. Being a diploid tissue.

## Answer: D

554. Megasporangium is equivalent to
A. Ovule
B. Embryo sac
C. Fruit

D. Nucellus.

## Answer: D

## - Watch Video Solution

555. Seed coat is not thin, membranous in
A. Gram
B. Maize

## C. Coconut

D. Groundnut.

Answer: C

## D Watch Video Solution

556. Which is correct
A. Tapetum nourishes the developing pollen
B. Hard outer layer of pollen is called intine
C. Sporogenous tissue is haploid
D. Endothecium produces microspores.

Answer: A

## D Watch Video Solution

557. Animal vectors are required for pollination in
A. Mulberry
B. Cucumber
C. Maize
D. Vallisneria.

Answer: B
( Watch Video Solution

# A. Sporopollenin is made up of inorganic 

 materialsB. Sporopollenin can withstand high
temperature as well as strong acids and
alkalies
C. Sporopollenin can withstand high
temperatures but not strong acids
D. Sporopollenin can be degeraded by
enzymes.

Answer: B

## - Watch Video Solution

559. Given here is diagram of embryo sac.

Which option is correctly matched

A. a- synergids, b- antipodal cells, c- egg
cell, d- polar nuclei
B. a- egg cell, b-synergids, c- polar nuclei, d-
C. a- egg cell, b-polar nuclei, c- synergids, dantipodal cells
D. a- antipodal cells, b- egg cell, c- polar nuclei, d- synergids.

## Answer: B

## D Watch Video Solution

560. Normally how many pollen mother cells are necessary for formation of 400 seeds
A. 200
B. 500
C. 100
D. 400

Answer: C

## D Watch Video Solution

561. Identify correctly the labels a, b, c and d in
the
figure
of
typical
flower

A. a- petals, $b$ - sepals, $c$ - stamens, $d$ - pistil
B. a- sepals, b-pistil, c- petals, d- stamens
C. a- sepals, b-pistil, c-stamens, d-petals
D. a- sepals, b- petals, c- pistil, d- stamens.

## Answer: C

562. Occurrence of triploid primary endosperm nucleus is cheracteristic of
A. Algae
B. Bryophytes
C. Gymnosperms
D. Angiosperms.

## Answer: D

563. Pollen grains of rice and wheat lose their viability in $\hat{a} €_{\mid .}^{\prime}$. Minutes of their release
A. 30
B. 10
C. 60
D. 90

Answer: A

## D Watch Video Solution

564. After double fertilization, a mature ovule has
A. 1 dipoid and 1 haploid cell
B. 1 diploid and 1 triploid cell
C. 2 haploid and 1 triploid cell
D. 1 haploid and 1 triploid cell.

Answer: B

D Watch Video Solution
A. Embryo is formed without meiosis and
syngamy
B. Embryo develops directly from a diploid
cell other than egg
C. Egg is induced artifically to develop into
embryo
D. Young ones develop from reproductive units.

Answer: B

## D Watch Video Solution

566. Which is not correct about entomophilous flowers
A. Pollen grains are heavy and sticky
B. Stigmas are unbranched
C. Sepals are well developed.
D. Petals brightly coloured

## Answer: C

## - Watch Video Solution

567. In L.S. embryo of grass, which one shows correct labelling

A. a- scutellum, b-coleoptile, c- shoot apex, d- epiblast, e- radicle, f- root cap, g-
coleorhiza
B. a- root cap, b- shoot apex, c- scutellum,
d- coleoptile, e- epiblast, f- radicle, gcoleorhiza
C. a- coleorhiza, b- radicle, c- epiblast, d-
coleoptile, e- root cap, f- scutellum, g-
shoot apex
D. a- coleptile, b- scutellum, c- radicle, d-
shoot apex, e- epiblast, f- coleorhiza, groot cap.

Answer: A

## - Watch Video Solution

568. Immature male gametophyte differs from a mature male gametophyte in that it
A. Has not yet left pollen sac
B. Has not yet germinated and its
generative cell has not divided into two
male gametes
C. Is a microspore that has not yet divided by mitosis
D. Still consists of microsporocyte.

Answer: B

- Watch Video Solution

569. Nitsch was able to get strawberries of different shapes by
A. Splitting the ovary
B. Removing the parianth
C. Selectively removing some carpels
D. Inserting an alcohol dipped neddle into
overy.

## Answer: C

## D View Text Solution

570. In flowering plants, double fertilization involes
A. Fertilization of egg cell and central cell
by two male gametes brought by same
pollen tube
B. Fertilization of egg cell by two male
gametes
C. Fertilization of egg cell and central cell
by two male gametes brought by
different pollen tubes
D. Fertilization of two egg cells by two male
gametes brought by same pollen tube.

## D Watch Video Solution

571. Which part of flowering plant contains
sporogenous tissue
A. Stamen
B. Pollen
C. Microspores
D. Young anthers.

## Answer: D

## D Watch Video Solution

572. Embryo sac of angiosperms contains
A. 3-celled egg apparatus, 3 antipodal cells and 2 polar nuclei
B. 2- called egg apparatus, 3 antipodal cells
and 2 polar nuclei
C. 3-celled egg apparatus, 2 antipodal cells

## and 1 polar nucleus

## D. 3- celled egg apparat us, 1 antipodal cell

and 2 polar nuclei.

## Answer: A

## D Watch Video Solution

573. Nucleus of megaspore divides mitotically from two nuclei which move to opposite poles and leter from an embryo sac which is
A. 2-nucleate
B. 4- nucleate
C. 6- nucleate
D. 8- nucleate.

## Answer: D

## D Watch Video Solution

574. Scutellum is part of

A. Leaf bud

## B. Dicot embryo

C. Monocot embryo
D. none of above.

## Answer: C

## D Watch Video Solution

575. Endosperm, a product of double fertilisation in angiosperm is absent in the seeds of
A. Gram
B. Maize
C. Castor
D. Orchids.

Answer: A

## - Watch Video Solution

576. An endospermic seed is
A. Pea
B. Bean
C. Gram
D. Castor.

## Answer: D

## D Watch Video Solution

577. PEN stands for
A. Primary endosperm nourishment
B. Primary endosperm nucleus

## C. Primary embryo nourishment

D. Poly embryo nourishment.

Answer: B

## D Watch Video Solution

578. Himgiri variety which is resistant to hill bunt disease belongs to taxon in which pollen grains lose viability within 10 minutes of their release. The taxon belongs to
A. Sapindales
B. Polemoniales
C. Rosales
D. Poales.

## Answer: D

## D Watch Video Solution

579. wind pollinated plants generally do not show the character
A. Feathery stigmas
B. Single ovule in the ovary
C. Well exposed stamens
D. Flowers are large and colourful.

## Answer: D

## D Watch Video Solution

580. Identify the pair of wrong statements I.

Intine of pollen grains is made up of
sporopollenin, II.I Pollen grains are well
preserved as fossils because of the presence of sporopollenin, III. Enzymes can degrade the organic material of the pollen grain exine, IV.
Sporopollenin
can withstand
high
temperature, strong acids and alkali
A. III, IV
B. I, III
C. I,II
D. II,III

Answer: B
581. In which of the following plants, pollen is
released before the stigma becomes receptive
in the same flower
A. Allium
B. Colchicum
C. Datura
D. Solanum.
582. With respect to angiosperms, identify the incorrect pair from the following
A. Antipodals-2n
B. Vegetative cell of male gametophyte-n
C. Primary endosperm nucleus-3n
D. Cells of nucells of ovule-2n.

Answer: A

- Watch Video Solution

583. In Castor and Maize plants

# A. Autogamy is prevented but not 

 geitonogamyB. Both autogamy and geitonogamy are prevented
C. Male and female flowers are borne by
different plants
D. Anthers and stigma are placed at
different positions to encourage cross
pollination.

Answer: A

D Watch Video Solution
584. Germ pores in the pollen grains are regions
A. That can withstand high temperature,
strong acids and alkalies
B. Through which sperms are released into
the female gametophyte
C. Which are made of lignin and suberin
D. Which lack sporopollenin.

## Answer: D

## - Watch Video Solution

585. Perisperm is found in
A. Black pepper
B. Wheat
C. Maize
D. Groundnut.

Answer: A
586. Which of the following finds application in
hybrid seed industry
A. Apomixis
B. Parthenocarpy
C. Parthenogenesis
D. Polyembryony.

Answer: A
( Watch Video Solution
587. An angiospermic male plant with 24 chromosomes in its pollen mother cells is crossed with female plant bearing 24 chromosomes in its root cells. What would be the ploidy of embryo and endosperm respectively formed after this cross?
A. 24 and 48
B. 24 and 24
C. 48 and 72
D. 24 and 36

## Answer: D

## D Watch Video Solution

588. Cross pollination doen not occur in
A. Allogamous flowers
B. Geitonogamous flowers
C. Clestogamous flowers
D. Chasmogamous flowers.

## - Watch Video Solution

589. Select the correct statements from the
following I. Endosperm is generally triploid in angiosperms, II. All angiosperms have monosporic and endosporic embryo sac, III.

Angiosperms are characterised by double fertilization, IV. All angisoperms show indirect pollination and siphonogamy
A. I,II and III
B. II, III and IV
C. I, III and IV
D. I, II, III and IV

## Answer: C

## D Watch Video Solution

590. In angiosperms, formation of two male gametes from a pollen grain involves- divisions
A. One mitotic and one mitotic
B. Two meiotic and two mitotic
C. Only two mitotic.
D. Only two meiotic.

## Answer: C

## D Watch Video Solution

591. Which of the following features is/are common to both wind and water pollinated
flowers I. Pollen grains are long and ribbon-
like, II. Stigma is large and feathery, III. Flowers are not colourful, IV. Flowers are not colourful
A. III and IV
B. II and III
C. I and II
D. II

Answer: A

## D Watch Video Solution

592. Select the plants pollinasted by water (a)

Water Hyacinth (b) Zostera (c ) Amorphop-
hallus (d) Vallisneria (e) Yucca.
A. a,d and e
B. b and e
C. b and d
D. b,c,d

Answer: C

- Watch Video Solution

593. Which one of the following statements is
A. Mango is a parthenocarpic fruit
B. A proteinaceous aleurone layer is present in maize grain
C. A sterile pistil is called staminode
D. The seed in grasses in not endospermic.

## Answer: B

## - Watch Video Solution

594. Pollen tablets available in market are for
A. Breeding programme
B. Supplementary food
C. Ex situ conservation
D. In vitro fertilization

Answer: B

- Watch Video Solution

595. How many haploid nuclei are present in a mature pollen grain
A. One
B. Two
C. Three
D. Four.

Answer: B

D Watch Video Solution
596. What is the correct sequence in the formatio of female gametophyte in
angiosperms?
A. Nuclellus $\rightarrow$ Megaspore tetrad $\longrightarrow$

Megaspore mother cells $\rightarrow$ Megaspore
female gametophyte
B. Megaspore tetrad $\rightarrow$ nucellus $\rightarrow$
megaspore mother cells $\rightarrow$ megaspore
$\rightarrow$ female gametophyte
C. Nucellus $\rightarrow$ Megaspore mother cell
$\rightarrow$ megaspore tetrad $\rightarrow$ megaspore
$\rightarrow$ female gametophyte.
D. Megaspore mother cell $\rightarrow$ megaspore tetrad $\rightarrow$ megaspore $\rightarrow$ nucellus $\rightarrow$
female gametophyte.

## Answer: C

## D Watch Video Solution

597. Primary endosperm nucleus is formed by
the fusion of
A. Two polar nuclei + One synergid cell nucleus
B. One polar nucleus + One antipodal cell nucleus + One synergid cell nucleus
C. Two polar nuclei + one male gamete nucleus.
D. Two antipodal cell nuclei + one male gamete nucleus.

## Answer: C

# 598. Nonalbuminous seed occurs in 

A. Castor

B. Wheat
C. Pea/Groundnut
D. Maize.

Answer: C
599. Papaya is a dioecious plant. This condition prevents
A. Both autogamy and geitenogamy
B. Only autogamy
C. Only xenogamy
D. Geitonogamy.

Answer: A

## D Watch Video Solution

600. Seeds without fertilization is obtained

## from

A. Apomixis
B. Dormancy
C. Parthenocarpy
D. Polyembryony.

Answer: A

D Watch Video Solution
601. The 2000 years old seeds excavated from

King Horod's place in dead sea belongs to
A. Strobilanthus kunthiana
B. Phoenix dactylifera
C. Lupinus arcticus
D. Dendrocalamus strictus.

Answer: B

D Watch Video Solution
602. How many chromosomes are present in each of the following with respect to Maize plant respectively (a) Leaf epidermal cell (b)

Antipodal cell (c) Endosperm cell

Generative cell (e) Egg cell (f) Megaspore (g)
Microspore mother cell
A. $10,20,10,10,10,20,30$
B. $20,10,30,10,10,10,20$
C. $20,10,10,10,20,30,10$
D. $30,10,20,10,20,10,10$.

Answer: B

## D Watch Video Solution

603. In an angiosperm, the number of
microspore mather cells involved in
production of 120 male gametes is
A. 30
B. 60
C. 15
D. 40

## Answer: C

## - Watch Video Solution

## 604. Match the columns and find the correct

## combination

|  | Pisum saticum | (i) | Chasmos.am and cleist |
| :---: | :---: | :---: | :---: |
|  | ) Commelina | (ii) | Self pollination |
| (c) | Water Hyacinth | (iii) | Cross pollina |
|  |  |  | tion and self sterility |
|  | Abutilon | (iv) | Protogyny and entomophily |
| (e) | Sotanum | (v) | Entomophily and anemophily |

605. Match the coloumns and find the correct

## option

(a) Parthenocarpy
(b) Polyembryony
(i) Lodoicea
(c) Largest seed
(ii) Banana
(iii) Mango
(d) Seeds from Arctic tundra (iv) Orchid
(b) Lupinus

## - Watch Video Solution

606. Which of the following pairs in angiosperms are diploid and triploid respectively
A. Microspore mother cell and egg cell
B. Secondary nucleus and endosperm
C. Polar nucleus and secondary nucleus
D. Endosperm and antipodal cells.

Answer: B

- Watch Video Solution

607. Which is not a correct explanation of cross pollination
A. Pollen grains of malr flowers are transferred to stigma of female flowers B. Pollen grains are transferred from one
flower to another flower of another
plant of the same species
C. Pollen grains are transferred from one
flower to another flower situated on the
same species
D. Pollen grains of one flower are transferred to the stigma of the same

## Answer: D

## D Watch Video Solution

608. Monocotyledonous/wheat seed has one
large shield-shasped cotyledon known as
A. Coleoptile
B. Scutellum
C. Aleurone layer

## D. Coleorhiza.

## Answer: B

## - Watch Video Solution

609. What is the function of germ pore
A. Release of malr gametes
B. Emergence of radicle
C. Absorption of water for seed

## D. Initiation of pollen tube.

## Answer: D

## D Watch Video Solution

610. Name the plant shows adventive embryonic cells
A. Sunflower and mango
B. Lemon and Maize
C. Citrus and Mango
D. Lemon and Plams.

## Answer: C

## D Watch Video Solution

611. Pollen grain develops from $\hat{a} €_{\mid}^{\prime} \hat{a} €_{\mid} \hat{a} €_{\mid} \mid \hat{a} €_{\mid}^{\prime} \hat{a} €_{l}^{\prime}$ of anther
A. Epidermis
B. Endothecium
C. Tapetum

## D. Sprorogenous tissue.

## Answer: D

## D Watch Video Solution

612. In angiosperms during development of embryo, the suspensor cell develops from
A. Oospore
B. Integument
C. Endosperm
D. Cotyledon.

Answer: A

## D Watch Video Solution

# 613. Anemophily is NOT observed in 

A. Maize
B. Jowar
C. Sugarcane
D. Salvia.

## Answer: D

## - Watch Video Solution

614. If there are 1280 microspores in $a$ tetralocular anther. How many microspore mother cells will be there in its each pollen chamber
A. 80
B. 160
C. 240

## D. 1280

## Answer: A

## D Watch Video Solution

615. Large Stout, nocturnal flowers producing
copious nectar and emitting fermenting fruity
odour are the adaptation for
A. Entomophily
B. Ornithophily

## C. Chiropterophily

D. Anemophily.

## Answer: C

## D Watch Video Solution

616. Environmetal biotic factor that helps in pollination is
A. Air
B. Water

## C. Wind

D. Insects.

## Answer: D

## - Watch Video Solution

617. Which is not properly matched
A. Exine of pollen grains - Sporopollenin
B. Tapetum - Ubisch bodies
C. Male gametophyte of angiosperms - No
prothalial cells
D. Most common type of ovule

Orthotropous.

## Answer: D

## D Watch Video Solution

618. Embryo development from synergid or antipodal cell is known as
A. Apogamy
B. Apomixis
C. Amphimixis
D. Apospory.

Answer: A

D Watch Video Solution
619. Protein is stored in part of pulses
A. Endosperm
B. Cotyledons
C. Pericarp
D. Seed coat.

Answer: B

D Watch Video Solution
620. the aleurone synthesizes and secretes
digestive enzymes that hydrolyse nutrients
stored in the endosperm in the presence of
A. Auxin

B. Gibberellin

C. Cytokinin
D. Ethylene.

Answer: B

D Watch Video Solution
621. Banana is an example of :
A. Parthenocarpy

## B. Apomixis

C. Parthenogenesis
D. Polyembryony.

Answer: A

## D Watch Video Solution

622. Egg of female gametophyte is accompained by
A. Antipodal cell
B. Synergids
C. Definite nucleus
D. Tube nucleus.

Answer: B

D Watch Video Solution
623. How many meiotic divisions are required to produce 1000 pollen grains
A. 200
B. 250
C. 500
D. 1000

Answer: B

## - Watch Video Solution

624. Caruncle is derived from
A. Peduncle
B. Cotylendon

## C. Outer integument

D. Inner integument.

## Answer: C

## D Watch Video Solution

## 625. Parthenogenesis is

A. Formationn of egg without fertilization

B. Formation of sygcrgids without

fertilization

# C. Formation of fruit without ferilization 

## D. Formation of fruit without pollination.

## Answer: C

## D Watch Video Solution

626. "Isobilateral type" of microspore arrangement in tetrad is present in
A. Solanum nigrum
B. Zea mays

## C. Cassia fistula

D. Vigna radiata.

Answer: B

## D Watch Video Solution

627. Fibrous bands develop in the cells of anther wall layer known as
A. Epidermis
B. Endothecium
C. Middle layers
D. Tapetum.

Answer: B

## D Watch Video Solution

628. Consider the following statements and choose the correct option (a) Ovule is attached to the placenta by means of a stalk called filament (b) Ovule fuses with the stalk in the region called hilum (c) The two protective
envelopes of the ovule are called integuments
(d) The small opening in the tip of ovule is called germ pore
A. a and d
B. a and c
C. b and d
D. b and c.

Answer: D

D Watch Video Solution
629. Consider the following statements with respect to the flowering plants and choose the correct option (a) Pollen grains represent the male gametes (b) Functional megaspore develops innto embryo sac that represents the
female gamete (c) Transfer of pollen grains
from anther to stigma of different plant is known as xenogamy (d) Transfer of pollen grains from anther to stigma of another flower of the same plant is known as geitonogamy

## B. a and C

C. a and d
D. c and d.

Answer: D

## - Watch Video Solution

630. Which of the following is false in angiosperms
A. Egg cell - haploid
B. Megaspore - dipoloid
C. Pollen grain - haploid
D. Synergid - haploid.

Answer: B

- Watch Video Solution

631. In angiosperms, microsporogenesis and megasporogeneis
A. Occur in anthers
B. Form gametes without further divisions
C. Involve meiosis
D. Occur in ovule.

## Answer: C

## D Watch Video Solution

632. Male gametophyte in angiosperms produces:
A. Two sperms and a vegetative cell

## B. Single sperm and a vegetative cell

C. Single sperm and two vegetative cells
D. Three sperms.

Answer: A

D Watch Video Solution
633. Which pollinator is not attracted by scent of
A. Bird
B. Moth
C. Bat
D. Butterfly.

## Answer: A

## D Watch Video Solution

634. 32 chromosomes are present in the green
leaf of Onion. When meiosis takes place to
produce gametes after fertilization how many
chromosomes will be there in triploid nucleus
A. 32
B. 16
C. 48
D. 9

Answer: C

## D Watch Video Solution

635. "Pollen grains are protected by a mucilaginous covering and having a specific
gravity." This is characteristic of which type of pollination
A. Anemophily
B. Entomophily
C. Hydrophily

D. Zoophily.

Answer: C

- Watch Video Solution

636. Choose the correct options for statements $\mathrm{P}, \mathrm{Q}, \mathrm{R}$ in relevance to grass

Statement P .Flowers possess attractive colour anf fragrance Statement Q. Pollen grains are small, dry and light in weight Statement R.

Grass is air pollinated plant
A. Both P and Q are true, R is correct explanation of Q
B. $P$ is true and $Q$ is false, $R$ is correct explanation of P

# C. $P$ is false and $Q$ is true, $R$ is correct 

 explanation of QD. Both $P$ and $Q$ are false, $R$ has no relation

## with $P$ and $Q$.

## Answer: C

## D Watch Video Solution

637. In which type of development in dicotyledoneae, basal cell forms suspensor
A. Solanad type
B. Caryphylloid type
C. Crucifer type
D. Asterod type.

Answer: A

- View Text Solution

638. Which is false
A. Pro-ubisch bodies when coated coated
with sporopollenin become ubisch
bodies
B. The nucleus of tapetal cell divides by
mitosis and endomitosis
C. The fibrous thickening of endothecium is
made of suberin.
D. None of the above.

## Answer: C

639. Which of the following statement is

## correct

A. Chasmogamous flowers always exhibit geitonogamy
B. Cleistogamous flowers always exhibit autogamy
C. Chasmogamous flowers never exhibit autogamy

# D. Cleistogmous flowers exhibit both 

 autogamy and geitoogamy.Answer: B

## - Watch Video Solution

640. In a dithecouus anther, each pollen sac contains 1000 MMC. Which is the total number of pollen grains produced by anther
A. 4000
B. 8000

## C. 16000

D. 32000

## Answer: C

## - Watch Video Solution

# 641. What is not a post fertilization event 

A. Gametogenesis
B. Embryogenesis

## C. Fruit formation

D. Seed formation.

## Answer: A

## - Watch Video Solution

642. The correct sequence of events during
double fertilization of angiosperms is
A. Triple fusion, syngamy, porogamy
B. Syngamy, triple fusion, porogamy
C. Porogamy, syngamy, triple fusion
D. Syngamy, porogamy, triple fusion.

## Answer: C

## D Watch Video Solution

643. In an angiosperm, a female plant having
$2 n=24$ is crossed with a male plant having $2 n$
= 12. What will be the chromosome number of
endosperm
A. 12
B. 18
C. 24
D. 30

## Answer: D

## D Watch Video Solution

644. Which of the following wall layer anther shows fibrous thickening (of callose)
A. Epidermis
B. Tapetum
C. Middle layer
D. Endothecium.

## Answer: D

## D Watch Video Solution

645. Which of the following in embryo sac of angiosperms shows filiform appratus
A. Antipodals
B. Polar nuclei
C. Egg
D. Synergids.

Answer: D

D Watch Video Solution
646. Which is a character of Castor plant to avoid autogamy
A. Unisexuality
B. Porogamy
C. Protandry
D. Heterostyly.

Answer: A

D Watch Video Solution
647. Which of the following is the wrong match between the plant and its character for adaptation of cross pollination
A. Zosters - Bright coloured flowers with nectar
B. Bougainvillea - Petaloid bracts
C. Passion Flower - Corona
D. Adansonia - Copious nector.

Answer: A

## - Watch Video Solution

648. Assertion (A). Tageticula and

Amorphophallus cannot complete their life
cycle without each other Reason (R). The moth deposits its eggs in the locule of ovary and the
flowers which are many feet height in turn get pollinated by moth. The larvae come out of the eggs as the seeds start developing.
A. $A$ and $R$ are true and $R$ is the correct explanation of $A$
B. $A$ and $R$ are true and $R$ is not correct explanation of $A$
C. $A$ is true, $R$ is false
D. $A$ is false, $R$ is true.

Answer: D

D Watch Video Solution

## 649. Match the ovules with plants

(a) Micropyle of ovule (i) Dolichos close to funiculus as a result of $180^{\circ}$ curvature
(b) Micropyle, chalaza (ii) Loranthus and funiculus of ovule are on the same vertical line
(c) Body of ovule is (iii) Helianthus placed right angles to funiculus; and bends in such a way that micropyle comes towards funiculus
(1) ()vul- are without (iv) Polygonum mownomonts
(v) Sphagnum

## A. a-iii,b-iv,c-ii,d-v

## B. $a-i v, b-v, c-l, d-i i i$

## C. a-v,b-iv,c-iii,d-ii

D. $a-i i i, b-i v, c-l, d-i i$

## Answer: D

## D View Text Solution

650. A plant produced 50 flowers. Ovary of
each flower has 50 ovules. How many fruits
and seeds are produced by that plant respectively
A. 50,50
B. 50, 100
C. 50, 2500
D. 2500, 2500.

## Answer: C

## D Watch Video Solution

651. Identify the correct pair of statements

White kernel of Coconut is a free nuclear endosperm (ii) In dioecious plants, autogamy

Cleistogamous flowers are always self pollinated (iv) Castor is an endospermic seed.
A. i, ii
B. iii, iv
C. ii, iv
D. ii, iii.

Answer: B
( Watch Video Solution
652. Which is not part of anther wall

A. Epidermis

B. Middle layers

C. Endothecium

D. Nucelus .

## Answer: D

653. Consider the following statements with
respect to pollen grains (a) Exine is thin, continuous layer made up of cellulose and pectin (b) Hard outer layer called exine is made of sporopollenin (c) Sporopollenin is present in germ pores (d) Exine exhibits a fascinating array of patterns and designs. Of the above statements
A. a and b alone are correct
B. a and c alone are correct
C. b and d alone are correct
D. b and c alone are correct.

## Answer: C

## D Watch Video Solution

654. Which one of the following statements is
not true
A. Stored pollen in liquid nitrogen can be used in the crop breeding programme B. Tapetum helps in dehiscence of anthers
C. Exine of pollen grains is made of sporopollenin
D. Pollen grains of many species cause severe allergies.

Answer: B

D Watch Video Solution
655. The coconut water from tender coconut represents
A. Free nuclear endosperm
B. Free nuclear proembryo
C. Fleshy mesocarp
D. Endocarp.

Answer: A

D Watch Video Solution
656. Which of the following statements is not
A. Some reptiles have also been reported as pollinators in some plant species B. Pollen grains of many species can germinate on the stigma of a flower but only one pollen tube of the same species grows into style
C. Insects that consume pollen or nectar
without bringing about pollinationn are
called pollen/nectar robbers
D. Pollen germination and pollen tube growth are regulated by chemical
components of pollen interacting with those of pistil.

## Answer: B

## D Watch Video Solution

657. Seed formation without fertilization in
flowering plants involves the process of
A. Apomixis
B. Sporulation
C. Budding
D. Somatic hybridisation.

Answer: A

D Watch Video Solution
658. Match the columns and find the correct
(a) Pistils fuse together
(b.) Formation of gametes
(c) Hyphae of higher ascomycetes
(d) Unisexual female (iv) Dikaryotic
A. a-iii,b-l,c-iv,d-ii

B. $a-i v, b-i i i, c-l, d-i i$

## C. a-ii,b-l,c-iv,d-iii

## D. a-l,b-ii,c-iv,d-iii

## Answer: A

659. In majority of angiosperms
A. A small central cell is present in the embryo sac
B. Egg has a filiform apparatus
C. There are numerous antipodals cells
D. Reduction division occurs in megaspore
mother cell.

## Answer: D

660. Pollination in water by hyacinth and water
lily is brought about by the agency of:
A. Bats
B. Water
C. Insects or wind
D. Birds .

Answer: C
661. the ovule of an angiosperm is technically equivalent to
A. Megaspore
B. Megasporangium
C. Megasporophyll
D. Megaspore mother cell.

Answer: B
( Watch Video Solution
662. Identify the parts labelled $a, b, c$ and $d$
and select the correct option

A. a-scutellum, b-epiblast, c-coleoptile, dcoleorhiza
B. b-coleorhiza, c-coleoptile, d-epiblast
C. a-scutellum, b-coleoptile, c-coleorhiza, depiblast
D. a-epiblast, b-coleoptile, c-coleorhiza, dscutellum.

## Answer: C

# 663. Match the columns and find the correct 

## options

$\begin{array}{ll}\text { I } & \text { II } \\ \text { (a) Parthenocarpy } & \text { (i) Seed formation } \\ \text { without fertilization } \\ \text { (b) Polyembryony } & \text { (ii) More than one } \\ \text { embryo in same seed }\end{array}$
(c) Apomixis
(d) Somatic embryogenesis
(iii) Seedless fruits without fertilization
(iv) Embryo develops from a somatic cell

## A. a-iv,b-ii,c-iii,d-i

## B. a-iii,b-ii,c-l,d-iv

## C. a-l,b-iv,c-iii,b-ii

D. a-ii,b-iii,c-l,d-iv.

Answer: B

## - Watch Video Solution

664. In T.S anther, identify $\mathrm{a}, \mathrm{b}$ and c
a

A. a-connective, b-pollen grans, c-
endothecium.
B. a-endothecium, b-connective, c-pollen grains
C. a-pollen grans, b-connective, c-
endothecium
D. a-endothecium, b-pollen grains, cconnective.

Answer: A
665. Assertion : Endothecium layer of anther
wall plays an important role in dehiscence of anther Reason : The presence of fibrous bands and defferential expansion of inner and outer tangential walls of endothecial cells cause dehiscence of anther.
A. Point out if both are true with reason being correct explanation.
B. both true but reson is not correct explanation

## C. assertion true but reason is wrong

D. both are wrong

## Answer: A

## - Watch Video Solution

666. After double fertilization, a mature ovule has
A. One diploid and one haploid cell
B. One diploid and one triploid cell

# C. Two haploid and one triploid cell 

## D. One haploid and one triploid cell.

Answer: B

## D Watch Video Solution

667. Fowers which have single ovule in the ovary and are packed into inflorescence are usually pollinated by
A. Water
B. Bee
C. Wind
D. Bat.

## Answer: C

## D Watch Video Solution

668. Functional megaspore in an angiosperm develops into
A. Ovule
B. Endosperm
C. Embryo sac
D. Embryo.

## Answer: C

## D Watch Video Solution

669. A dioecious flowering plant prevents both
A. Autogamy and xenogamy
B. Autogamy and geitonogamy
C. Geitonogamy and xenogamy
D. Cleistogamy and xenogamy.

## Answer: B

## - Watch Video Solution

670. Attractants and reward are required for
A. Anemophily
B. Entomophily
C. Hydrophily
D. Cleistogamy.

Answer: B

## D Watch Video Solution

## Check Your Grasp

\author{

1. Diplospory leads to
}
A. Adventitive embryony
B. Recurrent agamospermy

# C. Nonrecurrent agamospermy 

D. Parthenogamy.

## Answer:

## - Watch Video Solution

## 2. What is pre-requisite for self pollination

A. Chasmogamy
B. Homogamy
C. Absence of pollenkitt.
D. Absence of nectar.

## Answer:

## D Watch Video Solution

# 3. Hypohydrophily occurs in 

A. Ceratophyllum
B. Lemna
C. Vallisneria
D. Nelumbium.

## Answer:

## - Watch Video Solution

4. Butterflies pollinate
A. Bluish flowers
B. Violet flowers
C. Reddish flowers
D. Purple flowers.
5. Moth Pronuba/Tegaticula is dependent for
its survival on plant
A. Magnolia
B. Erythrina
C. Adhatoda
D. Yucca.

Answer: D
6. Mulberry is pollinated by
A. Wind
B. Water
C. Insects
D. Birds.

Answer:

D Watch Video Solution

## 7. Crows help pollination of

A. Agave
B. Bombox
C. Erythrina
D. Bignonia.

Answer: B
( Watch Video Solution
8. Jasmine shows
A. Herkogamy
B. Dimorphic heterostyly
C. Trimorphic heterostyly
D. Dicliny.

## Answer:

# 9. A flower with over one thousand stamens is 

A. Bignonia

B. Bombox

C. Cannabis
D. Adansonia.

## Answer:

10. In Kalmia

A. Anthers are exposed
B. Stigma is exposed
C. Anthers are covered by corolla packets
D. Both B and C

Answer:
11. Above ground cleistogamous flowers are

## formed late in the season in

A. Balsam
B. Viola
C. Oxalis
D. All the above.

Answer: D

D Watch Video Solution
12. Monosporangiate anther occurs in
A. Arceuthobium
B. Rafflesia
C. Malva
D. Citrus.

Answer:

D Watch Video Solution
13. Which one produces callose for breaking
plasmodesmal connections among microspore mother cells
A. Microspore mother cells
B. Sporogenous cells
C. Tapetum
D. Middle layers.

## Answer:

D Watch Video Solution
14. Endothecial cells of anther has fibrous
thickenings of
A. Suberin
B. Cellulose.
C. Cutin
D. Lignin.

Answer:

D Watch Video Solution
15. Discontinuous layers in the wall of pollen grain are
A. Absent
B. Foot layer
C. Beculate layer
D. Baculate layer and tectum.

## Answer:

D Watch Video Solution

# 16. Pollen tube is covered by 

A. Exine only
B. Plasmalemma only
C. intine only
D. Exine and intine.

Answer:
17. In molva/Althaea a single pollen grain produces pollen tube
A. 1
B. 2
C. .4-6
D. .10-14

Answer:

D Watch Video Solution
18. An indehiscent integumented megasporangium is found in
A. Spermatophytes
B. Angisoperms only
C. Gymnosperms only
D. Both gymnosperms and angiosperms

## Answer:

D Watch Video Solution

# 19. In ovule, cuticle is present over 

A. Outer part of integument
B. Outer part of nucellus
C. Surface of both nucellus and integuments
D. None of the above.

## Answer:

20. A diploid structure present in the embryo sac is
A. Oosphere or egg
B. Secondary nucleus
C. Synergids
D. Antipodal cells.

Answer:
( Watch Video Solution

# 21. Type of ovule present in Opuntia is 

A. Camphylotropus
B. Amphitropous
C. Circinotropous
D. Hemitropous.

## Answer:

## 22. Endothelium develops from

A. Nucellus
B. Nucellus surrounding embryo sac
C. Tissue near chalaza
D. Innar part of integument.

## Answer:

## 23. Siphonogamy was discovered by

A. Strasburger

B. Amici

C. Nawaschin

D. Guignard

## Answer:

24. In dicot embryo hypophsis is
A. Termical cell of suspensor that grows to push the embryo downwards
B. Middle cell of suspensor that grows to
push the embryo downwards
C. Last cell of suspensor that forms radicle
D. Part of embryo that gives rise to radicle.

Answer: C
25. Embryo without plumule, radicle and cotyledon is formed in
A. Orchids
B. Orobanche
C. Utricularia
D. All the above.

## Answer:

26. In angiosperm, polyembryony was first reported by:
A. Leeuwenhoek
B. Strasburger
C. Hofmeister
D. Hanstein.

Answer:

D Watch Video Solution
27. In Areca, the endosperm is
A. Soft and ruminate
B. Fleshy and ruminate
C. Hard and smooth

D. Hard and ruminate.

## Answer:

( Watch Video Solution
28. Xenia was discovered by
A. Swingle
B. Focke
C. Guignard
D. Amici.

Answer:

- Watch Video Solution

29. the smallest pollen grain occure in
A. Myosotis

# B. Mirobilis 

C. Zostera
D. Eucalyptus.

## Answer:

## D Watch Video Solution

## Brain Teasers

1. A structure present in the ovule as well as
A. Integument
B. Micropyle
C. Chalaza
D. Hilum.

## Answer: C

## D Watch Video Solution

2. A plant in which fertilization occurs after the shedding of seed is
A. Orchis
B. Ginkgo
C. Viscum
D. Iris.

Answer: B

D Watch Video Solution
3. In ovule, exostome is
A. Area just outside the micropyle

## B. Area at the tip of nucellus

C. Part of micropyle enclosed by inner integument
D. Part of micropyle enclosed by outer integument.

## Answer: D

## D Watch Video Solution

4. Group of specialized thickened nucellar cells between embryo sac and chalaza is
A. Hypostase
B. Epistase
C. Tapetum
D. Endothelium.

Answer: A

D Watch Video Solution

## 5. Hypostase is meant for providing

A. Support to embryo sac
B. Nourishment to embryo sac
C. Breaking continutiy with parent
D. Partway for growth of future embryo.

Answer: B

## D Watch Video Solution

6. A group of specialised nucellar cells between embryo sac and micropyle is
A. Metastase
B. Mesostase
C. Epistase
D. Hypostase.

Answer: C

- Watch Video Solution

7. Sasa paniculata contains a large number of antipodal cells. The number is
A. 15
B. 85
C. 150
D. 300

Answer: D

D Watch Video Solution

# 8. Antipodal cells enlarge tremendously in 

A. Sasa
B. Caltha
C. Aconitum
D. Both B and C.

Answer: D

D Watch Video Solution

## 9. Which one develops from funicle of base of

## ovule

A. Sarcotesta
B. Aril
C. Arillode
D. Operculum.

Answer: B
(D) Watch Video Solution
10. Which one develops from exostome
A. Arillode
B. Operculum
C. Sarcotesta
D. Endothelium.

Answer: A
( Watch Video Solution
11. In tenuinucellate ovules, the mucellus may
break down. The nourishment is then provided
by
A. Hypostase
B. Epistase
C. Endothelium
D. Arillode.

Answer: C

D Watch Video Solution

## 12. Endothelium develops from

A. Endostome
B. Exostome
C. Chalaza
D. Inner layer of integument.

Answer: D
(D) Watch Video Solution
13. Middle layers of pollen sac wall are absent
in
A. Compositae
B. Lemnaceae
C. Nahadaceae
D. Both $B$ and $C$.

Answer: D

D Watch Video Solution
14. Growth of the pollen tube is
A. Apical
B. Intercalary
C. Basal
D. Intermittent.

Answer: A

D Watch Video Solution
15. The apical growing region of pollen tube is

## called

A. Growing zone
B. Cap block
C. Non-vacuolate region
D. Organelle region.

Answer: B
( Watch Video Solution
16. Functional part of pollen tube is separated
from the rest by
A. Vacuoles
B. Callose plugs
C. Septa
D. Both $B$ and $C$.

Answer: B

D Watch Video Solution
17. Pollen tube cytoplasm is like any other living cell in showing
A. Callose
B. Large vecuoles
C. Cytoplasmic streaming
D. Mucilage vesicles.

Answer: C
( Watch Video Solution
18. Male nucleus of flowering plant fuses with the egg nucleus in
A. Promitotic phase
B. Mitotic phase
C. Intermediate state
D. All the above.

Answer: D

D View Text Solution
19. Which one is true of male gamete of angiosperms
A. Large nucleus
B. Thick sheath of cytoplasm
C. Then sheath of cytoplasm devoid of cell
organelles
D. Both $B$ and $C$.

Answer: A
20. Heterofertilization is
A. Fusion of two male gametes with
different structures
B. Fusion of egg with secondary nucleus
C. Fusion of male gamete of one pollen
tube with oosphere and male gamete of
another pollen tube to secondary
nucleus

# D. Fusion of one of the synergids with 

 oosphere.
## Answer: C

## - Watch Video Solution

21. Formation of additional embryo from part of the same embryo or embryo sac is
A. True polyembryony
B. False polyembryony
C. Adventitive polyembryony
D. Haploid-diploid polyembryony.

## Answer: A

## D Watch Video Solution

22. In false polyembryony there is
A. No additional embryo but only an
artifact
B. The additional embryo is haploid
C. There are two or more embryo sacs
D. An embryo sac contains two or more oospheres.

## Answer: C

## D Watch Video Solution

23. Nymphaea shows polyembryony
A. Cleavage polyembryony
B. Adeventitive budding polyembryony

# C. Endosperm polyembryony 

D. Both A and B.

## Answer: A

## D Watch Video Solution

## 24. Endosperm polyembryony is type of

A. Adventitive polyembryony
B. True polyembryony
C. False polyembryony

## D. Gametophytic polyembryony.

## Answer: B

## D Watch Video Solution

25. In sporophytic polyembryony, the additional embryos develops from

A. Nucellus

B. Integument
C. First formed embryo
D. All the above.

## Answer: D

## D Watch Video Solution

26. Which one is a gametophytic polyembryony?
A. Endosperm polyembryony
B. Adeventitive polyembryony
C. Antipodal polyembryony

# D. Nucellar polyembryony. 

## Answer: C

## D Watch Video Solution

## 27. Climacteric is

A. Fruit
B. Seed
C. Flowers
D. Critical phase.

## Answer: D

## - Watch Video Solution

28. Climacteric fruit is the one which shows
A. Autochory
B. High respiratory activity at ripening
C. Sudden change in colour and taste at
ripening
D. Bothb and c

## Answer: d

## - Watch Video Solution

29. Ethyline is antagonised by
A. Calcium
B. Carbon dioxide
C. Silver
D. Both $B$ and C.

# 30. A fungus which secretes abscisic acid is 

A. Aspergillus
B. Gibberella
C. Cercospore
D. Alternaria.

## Answer: C

# 31. Johnson (1829) discovered 

A. Hydrotropism
B. Phototropism
C. Geotropism
D. Photonasty.

Answer: A

# 32. Geotropism was discovered by 

A. Darwin
B. Frank
C. Haberlandt
D. Gercke.

Answer: B

## 33. Taxis is movement in

A. Single cell
B. Single-celled organism
C. Cell organelles
D. All of above.

Answer: D
34. Closure of lamina in Venus Fly Trap
(Dionaea muscipula) after an insect happens to alight over it is
A. Thigmotropism
B. Haptonasty
C. Chemotropism
D. Chemonasty.

Answer: B

D Watch Video Solution
35. Trihydroxybenzene, a developer in photography is popularly called
A. Hypo
B. Pyrogallol
C. Phosphor
D. Autochrome.

Answer: B

D Watch Video Solution
36. Pyrogallol is used gas analysis because its
A. Alkaline solution absorbs exygen
B. Acidic solution absorbs oxygen
C. Alkaline solution reacts with carbon
dioxide
D. Acidic solution absorbs nitrogen.

Answer: A

- Watch Video Solution

37. Pomalin is sprayed over apple to increase fruit size. It is
A. Auxin
B. Mixture of auxin and gibberellin
C. Mixtureof auxin and cytokinin
D. Mixture of cytokinin and gibberellin.

Answer: B

- Watch Video Solution

