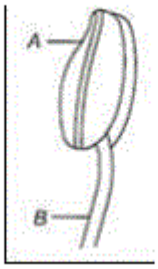
Sexual Reproduction in Flowering Plants

1. Flower – A Fascinating Organ of Angiosperms

Q1. Identify A and B in diagram given below:



(A) A-Stamen; B-Pistil

(B) A-Filament; B-Anther

(C) A-Anther; B-Filament

(D) A-Pistil, B-Stamen

Correct Answer: **(C)** Level: **Easy** Tagging: **Remembering**

Q2. Characteristics of wind pollinated pollens is, they are

(A) Non-sticky

(B) Light

(C) Large number in production

(D) All of these

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q3. Cleistogamous flowers are strictly autogamous because they remain

(A) Always open

(B) Always close

(C) Always fragrance

(D) Are brighty coloured

Correct Answer: **(B)** Level: **Easy** Tagging: **Remembering**

Q4. Embryo sac is also known as

(A) Micro-gametophyte

(B) Mega-gametophyte

(C) Micro-sporangium

(D) Mega-sporangium

Correct Answer: **(B)** Level: **Easy** Tagging: **Understanding**

Q5. Endosperm is consumed by developing embryo in the seed of

(A) Pea

(B) Maize

(C) Coconut

(D) Castor

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q6. False fruit is a fruit in which

(A) Only ovary take part in fruit development

(B) Only embryo take part an fruit development

(C) Only chalazal cells take part an fruit development

(D) Ovary and other floral part included in fruit

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q7. Flower is a

(A) Modified male plant only

(B) Modified female plant only

(C) Modified reproductive shoot

(D) Vegetative shoot system

Correct Answer: **(C)** Level: **Easy** Tagging: **Analyzing**

Q8. In chasmogamy pollination takes place in

(A) Open flower

(B) Closed flower

(C) Large flower

(D) Geitonogamy flower

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q9. In wind pollination the pollens are feathery, whether it is

(A) True

(B) False

(C) Sometimes (a) and sometimes (b)

(D) Neither (a) nor (b)

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q10. Individual part or segment of calyx is called

(A) Sepal

(B) Petal

(C) Tepal

(D) Corolla

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q11. Insect pollinated flowers are

(A) Nector producing

(B) Colourful

(C) Fragnance producing

(D) All of these

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q12. Micropyle helps in

(A) Germination of pollen grain

(B) Growth of pollen tube

(C) Coming out of pollen tube from pollen grain

(D) Allowing entry of pollen tube

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q13. Microspore develops into ova. This sentence is

(A) True

(B) False

(C) Sometimes (a) and sometimes (b)

(D) Neither (a) nor (b)

Correct Answer: **(B)** Level: **Easy** Tagging: **Understanding**

Q14. Ornithophily refers to the pollination by which of the following?

(A) Insects

(B) Birds

(C) Snails

(D) Air

Correct Answer: **(B)** Level: **Easy** Tagging: **Remembering**

Q15. Parthenocarpic fruit

(A) Develops from fertilization

(B) Developed from fertilized ovary

(C) Develops from unfertilized ovary

(D) Develops from ovules

Correct Answer: **(C)** Level: **Easy** Tagging: **Understanding**

Q16. Pollen grains of different plants, differ in

(A) Size and shape only

(B) Colour and design only

(C) Size, shape and design only

(D) Size, shape, colour and design

Correct Answer: **(D)** Level: **Easy** Tagging: **Analyzing**

Q17. Pollen kit material is secreted by

(A) Tapetum

(B) Endothecium

(C) Epidermis

(D) Endodermis

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q18. Seed is

(A) Ripened ovule

(B) Plant part having two generation

(C) Both (a) and (b)

(D) Miniature plant

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q19. Single megasporic development is called

(A) Single sporic

(B) Unisporic

(C) Monosporic

(D) Nulleiporic

Correct Answer: **(C)** Level: **Easy** Tagging: **Understanding**

Q20. Sporopollenin is chemically

(A) Homopolysaccharide

(B) Fatty substance

(C) Protein

(D) Heteropolysaccharide

Correct Answer: **(B)** Level: **Easy** Tagging: **Understanding**

Q21. Tapetum is found in

(A) Anther

(B) Microspore

(C) Male gametophyte

(D) Female gametophyte

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q22. Which of the following statements is wrong?

(A) Pollen grains remain viable for several months because their outer covering is made of sporopollenin

(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

Correct Answer: **(D)** Level: **Easy** Tagging: **Remembering**

Q23. Wind pollinated flower have long well exposed stigma. This statement is

(A) TRUE

(B) FALSE

(C) Sometimes (a) and sometimes (b)

(D) Neither (a) nor (b)

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q24. Entry of pollen tube with two male gametes and tube nucleus through micropyle, is

(A) Mesogamy

(B) Porogamy

(C) Chalazogamy

(D) None of these

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q25. Hermaphrodite flower have

(A) Male and female on same plant

(B) Male and female on same flower

(C) Male and female on different flower

(D) Male and female on difference plant

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q26. If stem has 2n=10 number of chromosomes than find out A – number of chromosomes in endosperm B – number of chromosomes in egg cell C – number of chromosomes in polar nuclei

(A) 15, 15, 20

(B) 10, 15, 20

(C) 15, 5, 10

(D) 10, 5, 15

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q27. Long silky hairs on cob of maize are

(A) Anthers

(B) Style

(C) Stigma

(D) Both (b) and (c)

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q28. Mass of cells enclosed by integuments is called

(A) Nucellus

(B) Embryo

(C) Ova

(D) Pollen

Correct Answer: **(A)** Level: **Moderate** Tagging: **Remembering**

Q29. Maximum viability of rice and wheat is

(A) 60 min

(B) 50 min

(C) 40 min

(D) 30 min

Correct Answer: **(D)** Level: **Moderate** Tagging: **Analyzing**

Q30. One advantage of cleistogamy is

(A) It leads to greater genetic diversity

(B) Seed dispersal is more efficient and widespread

(C) Seed set is not dependent on pollinators

(D) Each visit of a pollinator results in transfer of hundreds of pollen grains

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q31. Parthenium or carrot grass is imported with

(A) Wheat

(B) Grass

(C) Rise

(D) Maize

Correct Answer: **(A)** Level: **Moderate** Tagging: **Remembering**

Q32. Pollens have two prominent walls which are … A … and … B …. Here A and B refers to

(A) A-Intine B-Protein coat

(B) A-Exine B-Intine

(C) A-Sporopollenin B-Intine

(D) A-Sporopollenin B-Exine

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q33. Pollination by bats is called

(A) Anemophily

(B) Hydrophily

(C) Ornithophily

(D) None of these

Correct Answer: **(D)** Level: **Moderate** Tagging: **Remembering**

Q34. Pollination by insect is

(A) Entomophily

(B) Chiropterophily

(C) Anemophily

(D) Zoophily

Correct Answer: **(A)** Level: **Moderate** Tagging: **Remembering**

Q35. Pollination by snail and slug is called

(A) Ornithophily

(B) Chiropterophily

(C) Entomophily

(D) Malacophily

Correct Answer: **(D)** Level: **Moderate** Tagging: **Remembering**

Q36. The cylindrical portion below the cotyledons is …A… that terminates to …B… and tip called …C… A, B and C here refers to

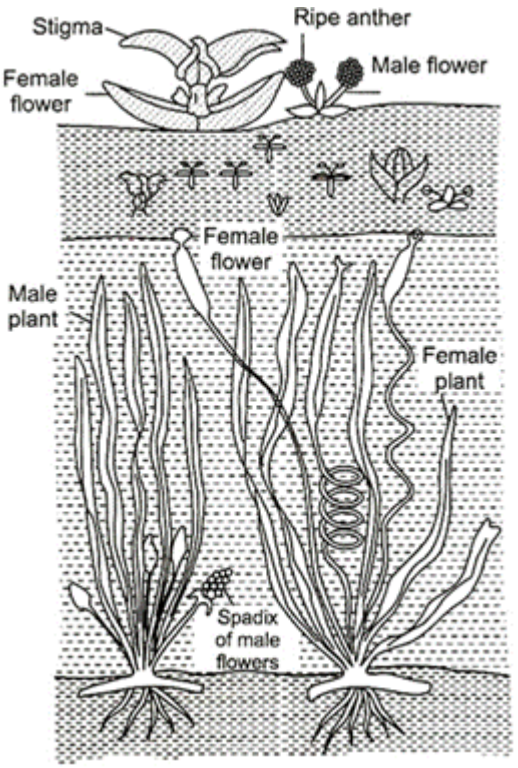
(A) A-radicle, B-hypocotyle, C-root cap

(B) A- root cap, B- radicle, C- hypocotyle

(C) A- hypocotyle, B-root cap, C-radicle

(D) A- hypocotyle, B-radicle , C-root cap

Correct Answer: **(D)** Level: **Moderate** Tagging: **Analyzing**



Q37. The diagram depicts

(A) Water pollination in Vallisneria (tape-grass)

(B) Air pollination in Vallisneria (tape-grass)

(C) Anemophily in Vallisneria (tape-grass)

(D) Zoophily in Vallisneria (tape-grass)

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q38. The functional innermost layer of pollen sac, tapetum is

(A) Dehiscence

(B) Nutritive

(C) Mechanical

(D) Protective

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q39. The fusion of male and female pronuclei of the gametes is called

(A) Fertilization

(B) Conjugation

(C) Amphimixis

(D) Panmixis

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q40. The movement of pollen tube is called

(A) Chemotropism or chemotaxis

(B) Thermotaxis

(C) Thermonastic

(D) Hydrotropism

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q41. The process of transfer of pollen grains from anther to stigmatic surface with the help of water is called

(A) Anemophily

(B) Zoophily

(C) Hydrophily

(D) Ornithophily

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q42. The wall of pollen tube is made of

(A) Cellulose

(B) Pectin

(C) Both (a) and (b)

(D) None of these

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q43. These processes are necessary for the complete development of male gametophyte from pollen mother cell.

(A) One meiotic and two mitotic division

(B) One meiotic cell division and one mitotic cell division

(C) two meiotic cell division and one mitotic cell division

(D) two meiotic cell division

Correct Answer: **(A)** Level: **Moderate** Tagging: **Applying**

Q44. Unisexuality of flowers prevents

(A) Autogamy, but not geitonogamy

(B) Geitonogamy and xenogamy

(C) Geitonogamy, but not xenogamy

(D) Autogamy and Geitonogamy

Correct Answer: **(A)** Level: **Moderate** Tagging: **Analyzing**

Q45. What is pollen grain?

(A) Microspore mother cell

(B) Male gamete

(C) Male gametophyte

(D) Partially developed embryo

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q46. Which one of the following is not a correct explanation of cross-pollination?

(A) The pollen grains are transferred from one flower to another flower situated on the same plant

(B) The pollen grains are transferred from one flower to another flower, of another plant the same species

(C) The pollen grains of male flower are transferred to the stigma of the female flower

(D) The pollen grains of the flower are transferred to the stigma of the same flower

Correct Answer: **(D)** Level: **Moderate** Tagging: **Understanding**

Q47. Wind pollinated flowers are

(A) Small, brightly coloured, producing large number of pollen grains

(B) Small, producing large number of dry pollen grains

(C) Large producing abundant nectar and pollen

(D) Small, producing nectar and dry pollen

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q48. Wind pollination is common in

(A) Lilies

(B) Grasses

(C) Orchids

(D) Legumes

Correct Answer: **(B)** Level: **Moderate** Tagging: **Analyzing**

Q49. Xenia refers to

(A) Effect of pollen on endosperm

(B) Effect of embryo on sperm

(C) Both (a) and (b)

(D) None of the above

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q50. Selaginella and Salvinia considered to represent a significant step towards evolution of seed habit because

(A) Female gametophyte is free and gets dispersed like seed

(B) Female gametophyte lacks archegonia

(C) Megaspore possess endosperm and embryo surrounded by seed coat

(D) Embryo develops in female gametophyte which is retained on the parent sporophyte

Correct Answer: **(D)** Level: **Difficult** Tagging: **Understanding**

Q51. Which of the following perform microsporogenesis?

(A) Microspore mother cell

(B) Pollen mother cell

(C) Both (a) and (b)

(D) None of these

Correct Answer: **(C)** Level: **Difficult** Tagging: **Evaluating**

2. Pre-fertilisation : Structures and Events

Q52. 'Microspores arranged in a cluster of four cells called megaspore tetrad'. The above statement is

(A) True

(B) False

(C) Sometimes (a) and sometimes (b)

(D) Neither (a) nor (b)

Correct Answer: **(B)** Level: **Easy** Tagging: **Understanding**

Q53. Anemophily is a type of pollination found in

(A) Salvia

(B) Bottle brush

(C) Vallisneria

(D) Coconut

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q54. Fertilization of egg takes place inside

(A) Anther

(B) Stigma

(C) Pollen tube

(D) Embryo sac

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q55. Identify A and B in diagram given below:

(A) A-Stamen; B-Pistil

(B) A-Filament; B-Anther

(C) A-Anther; B-Filament

(D) A-Pistil, B-Stamen

Correct Answer: **(C)** Level: **Easy** Tagging: **Understanding**

Q56. Microsporangium produces

(A) Male gametes

(B) Female gametes

(C) Pollen

(D) Both (a) and (c)

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q57. Orthotropous ovule belongs to

(A) Urtica

(B) Polygonum

(C) Peperomea

(D) All of these

Correct Answer: **(D)** Level: **Easy** Tagging: **Remembering**

Q58. Scutellum is

(A) Cotyledon in dicots

(B) Cotyledon in gymnosperm

(C) Monocot root

(D) Cotyledon in grass family

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q59. The 'eyes' of the potato tuber are

(A) Flower buds

(B) Shoot buds

(C) Axillary buds

(D) Root buds

Correct Answer: **(C)** Level: **Easy** Tagging: **Understanding**

Q60. The arrangement of the nuclei in a normal embryo sac in the dicot plants, is

(A) 2+4+2

(B) 3+2+3

(C) 2+3+3

(D) 3+3+2

Correct Answer: **(B)** Level: **Easy** Tagging: **Evaluating**

Q61. The outermost layer of maize endosperm is known as

(A) Perisperm

(B) aleurone

(C) Tapetum

(D) endothelium

Correct Answer: **(B)** Level: **Easy** Tagging: **Understanding**

Q62. The ovule in which the funicle, chalaza and micropyle lie in one vertical plane, is called

(A) Campylotropous

(B) Amphitropous

(C) Orthotropous

(D) Anatropous

Correct Answer: **(C)** Level: **Easy** Tagging: **Remembering**

Q63. The pollens are liberated in cassytha by

(A) Porous dehiscence

(B) Longitudinal dehiscence

(C) Transverse dehiscence

(D) Valvular dehiscence

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q64. Which of the following plant products is the hardest?

(A) Lignin

(B) Cutin

(C) Suberin

(D) Sporopollenin

Correct Answer: **(D)** Level: **Easy** Tagging: **Analyzing**

Q65. Zygote is always

(A) Haploid

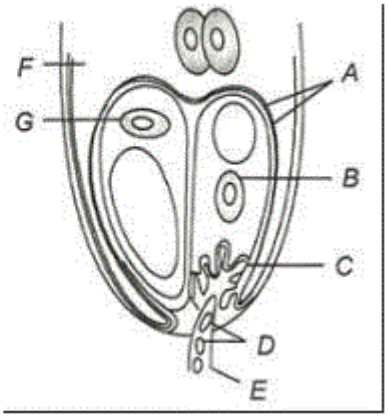
(B) Diploid

(C) Triploid

(D) Tetraploid

Correct Answer: **(B)** Level: **Easy** Tagging: **Understanding**

Identify Point A, B, C, D, E, F and G



Q66.

(A) A-Synergid, B-Filiform apparatus, C-Male gamete,D-Plasma membrane, E-Central cell, F-Egg nucleus,G-Vegetative nucleus

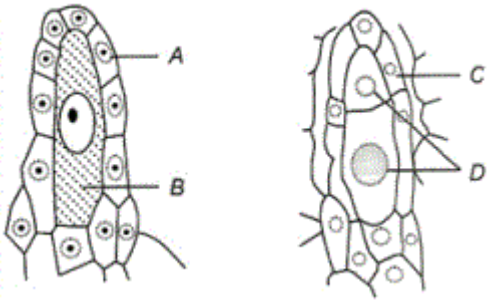
(B) A- Filiform apparatus, B- Central cell, C- Egg nucleus,D- Vegetative nucleus, E- Male gamete, F-Synergid,G- Plasma membrane

(C) A- Plasma membrane, B- Synergid ,C- Filiform apparatus,D- Male gamete,E- Vegetative nucleus,F-Central cell,G-Egg nucleus

(D) A- Central cell, B- Egg nucleus, C- Vegetative nucleus, D- Male gamete, E- Synergid, F-Plasma membrane

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Identify the labelling of given diagrams



Q67.

(A) A-MMC, B-Megaspore dyad, C-Nucellus, D-Nucleus

(B) A- Nucellus, B- Megaspore dyad, C- Nucellus, D-MMC

(C) A- Nucellus, B-MMC, C- Nucellus, D- Megaspore dyad

(D) A-MMC, B- Nucellus, C- Megaspore dyad, D- Nucleus

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q68. Fruit and seed develops

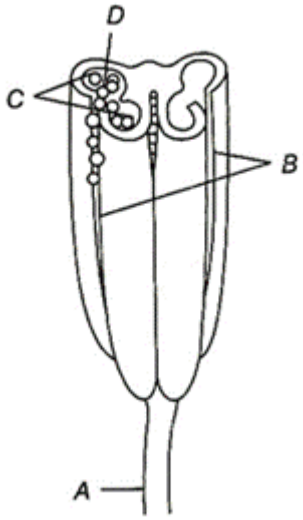
(A) Simultaneously

(B) First seed than fruit

(C) First fruit than seed

(D) Both develops after endosperm formation

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**



Q69. Identify A to D in the following diagram

(A) A-Filament, B-Pollen sac, C-Pollen grain, D-Line of dehiscence

(B) A-Filament, B-Pollen sac, C-Line of dehiscence, D-Pollen grain

(C) A-Filament, B- Line of dehiscence, C- Pollen sac, D-Pollen grains

(D) A-Filament, B- Line of dehiscence, C- Pollen sac, D-Pollen grains

Correct Answer: **(D)** Level: **Moderate** Tagging: **Understanding**

Q70. In artificial hybridization the steps involved are I. Bagging II. Emasculation III. Rebagging Their right arrangement is

(A) $I \rightarrow II \rightarrow III$

(B) $II \rightarrow I \rightarrow III$

(C) $III \rightarrow II \rightarrow I$

(D) $II \rightarrow III \rightarrow I$

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q71. The process in which haploid embryo is formed from haploid egg without fertilization is called

(A) Apospory

(B) Agamospermy

(C) Apogamy

(D) Vegetative reproduction

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q72. Which one of the following is a reference to xenogamy ?

(A) Ripening of androecium earlier to gynoecium

(B) Pollen grains of one flower reaching the stigma of another flower present on the same plant

(C) Pollen grains of one flower reaching the stigma of another flower present on a different plant of the same species

(D) The inability of pollen tube to terminate on the stigma of the same flower

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q73. Wind pollinated flowers often have

(A) Single ovule in each ovary

(B) Numerous flowers packed into inflorescence

(C) Both (a) and (b)

(D) None of the above

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q74. What would be the number of chromosomes in the cells of the aleurone layer in a plant species with 8 chromosomes in its synergids?

(A) 16

(B) 24

(C) 32

(D) 8

Correct Answer: **(B)** Level: **Difficult** Tagging: **Creating**

3. Apomixis and Polyembryony

Q75. 'Cells at the chalazal end are called synergid cells'. The above statement is

(A) True

(B) False

(C) Sometimes (a) and sometimes (b)

(D) Neither (a) nor (b)

Correct Answer: **(B)** Level: **Easy** Tagging: **Understanding**

Q76. 'In coconut the cellular endosperm surrounds the nuclear endosperm'. The above statement is

(A) True

(B) False

(C) Sometimes (a) and sometimes (b)

(D) Neither (a) nor (b)

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q77. 8-nucleated embryo sac are

(A) Monosporic

(B) Bisporic

(C) Tetrasporic

(D) Any of these

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q78. A bisexual flower which never open, is known as

(A) Autogamous

(B) Cleistogamous

(C) Homogamous

(D) Allogamous

Correct Answer: **(B)** Level: **Easy** Tagging: **Remembering**

Q79. A micropyle is a

(A) Small pore through which water enters

(B) Small aperture where no integuments are present

(C) Small pore needed for seed existence

(D) All of the above

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q80. An ovule is a

(A) Differentiated megasporangium

(B) Dedifferentiated megasporangium

(C) Integumented megasporangium

(D) Redifferentiated megasporangium

Correct Answer: **(C)** Level: **Easy** Tagging: **Remembering**

Q81. Apomixis arises due to

(A) Rapid reproduction in plants

(B) Slow reproduction in plants

(C) Both (a) and (b)

(D) None of the above

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q82. Apomixis is like

(A) Sexual reproduction

(B) Fertilization

(C) Parthenogenesis

(D) Asexual reproduction

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q83. Center of each microsporangium is occupied by

(A) Sporogenous tissue

(B) Spongious tissue

(C) Central tissue

(D) Microspore mother cell

Correct Answer: **(D)** Level: **Easy** Tagging: **Remembering**

Q84. Chances of pollination in air and water are increased by increasing number of pollens. This statement is

(A) TRUE

(B) False

(C) Sometimes (a) and sometimes (b)

(D) Neither (a) nor (b)

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q85. Devices for self-pollination are

(A) Dicliny or unisexuality

(B) Dichogamy

(C) Heterostyly

(D) None of these

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q86. During the formation of embryo sac, the functional megaspore undergoes

(A) Two mitotic divisions

(B) Two meiotic divisions

(C) Three meiotic divisions

(D) Three mitotic divisions

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q87. Function of aleurone layer is to

(A) Prepare amylase

(B) Prepare proteinase

(C) Prepare peptidase

(D) Prepare food

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q88. Grass family (Poaceae) contains

(A) Exposed stigma

(B) Versatile anther

(C) Both (a) and (b)

(D) Large pollens

Correct Answer: **(C)** Level: **Easy** Tagging: **Understanding**

Q89. How many nuclei are found in female gametophyte?

(A) 8

(B) 7

(C) 6

(D) 5

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q90. In a type of apomixes known as adventive embryony, embryos develop directly from the

(A) Nucellus or integuments

(B) Synergids or antipodals in an embryo sac

(C) Accessory embryo sacs in the ovule

(D) Zygote

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q91. In angiosperm functional megaspore develops into

(A) Embryo sac

(B) Ovule

(C) Endosperm

(D) Pollan sac

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q92. A scion is grafted to a stock. The quality of fruits produced will be determined by the genotype of

(A) Stock

(B) Scion

(C) Both (a) and (b)

(D) Neither (a) nor (b)

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q93. A typical angiosperm embryo sac at maturity, is

(A) 4 – nucleate, 2 – celled

(B) 8 – nucleate, 7 – celled

(C) 4 – nucleate, 4 – celled

(D) 8– nucleate,4 – celled

Correct Answer: **(B)** Level: **Moderate** Tagging: **Analyzing**

Q94. Device to discourage self-pollination or increase cross-pollination is

(A) Pollen release and stigma receptivity are not synchronized

(B) Anther and stigma placed at different position

(C) Same height of stamen and stigma

(D) Both (a) and (b)

Correct Answer: **(D)** Level: **Moderate** Tagging: **Understanding**

Q95. Find out the correct statement

(A) Parthenocarpic fruits are seedless

(B) Parthenocarpy is developed by hormones

(C) Both (a) and (b)

(D) Parthenocarpic seeds are developed by fertilized ovary

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q96. If there are four cells in a anther, what will be the number of pollen grains?

(A) 4

(B) 9

(C) 12

(D) 16

Correct Answer: **(D)** Level: **Moderate** Tagging: **Understanding**

Q97. In orthotropous ovule, the micropyle and chalaza are

(A) Oblique to funiculus

(B) Parallel to funculus

(C) At right angle to funiculus

(D) In straight line with funiculus

Correct Answer: **(D)** Level: **Moderate** Tagging: **Understanding**

Q98. In the fully organized Polygonum type of embryo sac, what is the ratio of haploid, diploid and triploid nuclei?

(A) 3 : 1 : 3

(B) 06:00:01

(C) 06:01:00

(D) 3 : 2 : 3

Correct Answer: **(C)** Level: **Moderate** Tagging: **Evaluating**

Q99. Intine is made up of

(A) Cellulose

(B) Pectin

(C) Both (a) and (b)

(D) Protein

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q100. Majority of plants are

(A) Biotic agent for pollination

(B) Non- biotic agent for pollination

(C) Air for pollination

(D) Animals for pollination

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q101. Meiotic cell division takes place during

(A) Gametogenesis

(B) Embryogenesis

(C) Organogenesis

(D) Parthenogenesis

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q102. Mesogamy is

(A) Fusion of male and female gametes

(B) Fusion of physiologically similar and morphologically different gametes

(C) Entry of pollen tube through integuments

(D) None of the above

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q103. Micropyle is formed by

(A) Absence of integuments

(B) Absence of funicle

(C) Absence of nucellus

(D) Absence of embryo sac

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q104. Nuclear polyembryony is reported in

(A) Citrus

(B) Gossypium

(C) Triticum

(D) Brassica

Correct Answer: **(A)** Level: **Moderate** Tagging: **Analyzing**

Q105. Occurrence of more than four spores from a spore mother cell is called

(A) Polysiphony

(B) Polyspermy

(C) Polyspory

(D) Polyembryony

Correct Answer: **(C)** Level: **Moderate** Tagging: **Remembering**

Q106. Occurrence of more than one embryo is called

(A) Polyembryony

(B) Embryony

(C) Parthenogenesis

(D) Fertilization

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q107. Ovules contain many embryo in

(A) Citrus

(B) Orange

(C) Mango

(D) All of these

Correct Answer: **(D)** Level: **Moderate** Tagging: **Analyzing**

Q108. Pericarp is

(A) Wall of ovary

(B) Wall of fruit

(C) Both (a) and (b)

(D) wall of embryo

Correct Answer: **(C)** Level: **Moderate** Tagging: **Analyzing**

Q109. Perisperm is found in

(A) Black pepper

(B) apple

(C) Beet

(D) Both (a) and (c)

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q110. Pollen grains can cause

(A) Bronchial afflications

(B) Asthma

(C) Bronchitis

(D) All of these

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q111. Raphe is

(A) Part of flower

(B) Funicle attached to ovule

(C) Ridge formed by funiculus

(D) Part of nucellus

Correct Answer: **(C)** Level: **Moderate** Tagging: **Remembering**

Q112. Some plant have a habit of harbouring ants to save the plants from damage by other animals which is known as

(A) Entomophily

(B) Myrmecophily

(C) Anemophily

(D) Hydrophily

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q113. Synergid's filiform apparatus

(A) Guide the pollen tube

(B) Guide the style for development

(C) Present near the micropylar end

(D) Both (a) and (c)

Correct Answer: **(D)** Level: **Moderate** Tagging: **Understanding**

Q114. Syngamy is the process in which

(A) Male gamete fuses with female gamete

(B) Pollen tube enter into the ovule through micropyle

(C) Pollen tube enter into the ovule through chalaza

(D) Vegetative cell and tube cell fuse

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q115. The onagrad type embroyo, development is found in

(A) Solanum

(B) Capsella

(C) Lilium

(D) Hibiscus

Correct Answer: **(B)** Level: **Moderate** Tagging: **Analyzing**

Q116. The type of pollination adaptation found in calotropis is

(A) Dicliny

(B) Herkogamy

(C) Heterostyly

(D) Dichogamy

Correct Answer: **(B)** Level: **Moderate** Tagging: **Analyzing**

Q117. This diagram given below depicts

(A) Wind pollinated plant

(B) Well exposed stamen

(C) Compact inflorescence

(D) All of these

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q118. True fruit is directly derived from

(A) Stem

(B) Root

(C) Ovule

(D) None of the above

Correct Answer: **(D)** Level: **Moderate** Tagging: **Analyzing**

Q119. Type of pollination in commelina is

(A) Chasmogamy

(B) Geitonogamy

(C) Xenogamy

(D) Cleistogamy

Correct Answer: **(D)** Level: **Moderate** Tagging: **Understanding**

Q120. Vegetative/Asexual reproduction and apomixis are common in

(A) Type of cell division

(B) Clone nature of offsprings

(C) Both (a) and (b)

(D) Only in dicot plant

Correct Answer: **(B)** Level: **Moderate** Tagging: **Remembering**

Q121. What does the filiform apparatus do at the entrance into ovule?

(A) It helps in the entry of pollen tube into a synergid

(B) It prevents entry of more than one pollen tube into the embryo sac

(C) It brings about opening of the pollen tube

(D) It guides pollen tube from a synergid to egg

Correct Answer: **(D)** Level: **Moderate** Tagging: **Understanding**

Q122. What is the ratio of equational divisions that take place in Cycas and angiosperms respectively leading to the formation to male gametes from pollen grains?

(A) 3: 2

(B) 3: 1

(C) 2: 1

(D) 2: 3

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q123. When pollen is transferred from anther of a flower to stigma of the another of the another flower of the same plant, it is referred to as

(A) Allogamy

(B) Xenogamy

(C) Geitonogamy

(D) Autogamy

Correct Answer: **(C)** Level: **Moderate** Tagging: **Remembering**

Q124. Which cell is bigger and have abundant food reserve material during microsporogenesis?

(A) Generative cell

(B) Vegetative cell

(C) Vacuole

(D) Spore mother cell

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q125. Which is most crucial for seed storage?

(A) Dehydration and dormancy

(B) Endosperm and water

(C) Least amount of development

(D) Endosperm in large quantity

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q126. Which of these is not essential for allogamy?

(A) Self-sterility

(B) Dichogamy

(C) Heterogamy

(D) None of these

Correct Answer: **(D)** Level: **Moderate** Tagging: **Understanding**

Q127. Which one of following represents an ovule, where the embryo sac becomes horse-shoe shaped and the funiculus and micropyle are close to each other

(A) Circinotropous

(B) Anatropous

(C) Amphitropous

(D) Atropous

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q128. Which one of the following is not a device to promote cross-pollination?

(A) Cleistogamy

(B) Heterostyly

(C) Herkogamy

(D) Dichogamy

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q129. Xenogamy or cross-pollination is performed by I. Abiotic agencies II. Biotic agencies III. Insects only Select the correct option for the given question

(A) I and III

(B) II and III

(C) Only III

(D) I and II

Correct Answer: **(D)** Level: **Moderate** Tagging: **Understanding**

Q130. There are 10 flowers in one individual plant of crotalaria. In each microsporangium of every stamen of all the flowers, there are 30 microspore mother cells. How many pollen grains are formed from that plant?

(A) 4,000

(B) 10,000

(C) 24,000

(D) 48,000

Correct Answer: **(D)** Level: **Difficult** Tagging: **Evaluating**

4. Post-fertilisation: Structures and Events

Q131. Apomictic embryos in Citrus arise from

(A) Maternal sporophytic tissue in ovule

(B) Antipodal cells

(C) Haploid cells

(D) Synergids

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q132. Apomictic embryos in Citrus arise from

(A) Synergids

(B) Maternal sporophytic tissue in ovule

(C) Antipodal cells

(D) Diploid egg

Correct Answer: **(B)** Level: **Easy** Tagging: **Understanding**

Q133. Apomixis is seen in

(A) Asteracea

(B) Grasses

(C) Both (a) and (b)

(D) None of these

Correct Answer: **(C)** Level: **Easy** Tagging: **Understanding**

Q134. Cloves are obtained from

(A) Seed

(B) Fruit

(C) Coat

(D) Flower bud

Correct Answer: **(D)** Level: **Easy** Tagging: **Remembering**

Q135. Continued self-pollination results in

(A) Inbreeding depression

(B) Out breeding depression

(C) Hybrid vigour

(D) Better result in offsprings

Correct Answer: **(A)** Level: **Easy** Tagging: **Remembering**

Q136. Development of an embryo without fertilization is called as

(A) Apomixis

(B) Polyembryony

(C) Parthenocarphy

(D) Parthenogenesis

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q137. False fruits are found in

(A) Guava, pear and sapota

(B) Black pepper and beet

(C) Apple, strawberry and cashew

(D) Banana and apple

Correct Answer: **(C)** Level: **Easy** Tagging: **Understanding**

Q138. Find out the correct statement

(A) Parthenocarpic fruits are seedless

(B) Parthenocarpy is developed are hormones

(C) Both (a) and (b)

(D) Parthenocarpic seeds are developed by fertilized ovary

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q139. How many cells are found in female gametophyte?

(A) 6

(B) 8

(C) 7

(D) 5

Correct Answer: **(C)** Level: **Easy** Tagging: **Understanding**

Q140. How many number of nuclei are involved in fertilization?

(A) 1

(B) 2

(C) 3

(D) 5

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q141. Identify the type of ovary in diagram

(A) Multicarpellary apocarpous

(B) Multicarpellary syncarpous

(C) Multicarpellary pistillate

(D) Monocarpellary apocarpous

Correct Answer: **(B)** Level: **Easy** Tagging: **Understanding**

Q142. In a flowering plants, megaspore develops into an embryo sac, which contains

(A) 4 cells, one of which is an egg

(B) 6 cells, one of which is an egg

(C) 8 cells, one of which is an egg

(D) None of the above

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q143. Male gametes in angiosperms are formed by the division of

(A) Microspore

(B) Generative cell

(C) Vegetative cell

(D) Microspore mother cell

Correct Answer: **(B)** Level: **Easy** Tagging: **Understanding**

Q144. Megasporogenesis is

(A) Formation of fruit

(B) Formation of seeds

(C) Formation of seeds

(D) Both (b) and ©

Correct Answer: **(C)** Level: **Easy** Tagging: **Applying**

Q145. Non-albuminous seed

(A) Has no reserve food

(B) Also called exalbuminous

(C) Has thin cotyledons

(D) All of these

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q146. Non-endospermic seeds are seen in

(A) Groundnut

(B) Pea

(C) Beans

(D) All of these

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q147. Nucellar Polyembryony is report in

(A) Chitrus

(B) Gossypium

(C) Triticum

(D) Brassica

Correct Answer: **(A)** Level: **Easy** Tagging: **Remembering**

Q148. Nucellar polyembryony is reported in species of

(A) Gossypium

(B) Triticum

(C) Brassica

(D) Citrus

Correct Answer: **(D)** Level: **Easy** Tagging: **Remembering**

Q149. Nucellar polyembryony is reported in species of

(A) Gossypium

(B) Triticum

(C) Brassica

(D) Citrus

Correct Answer: **(D)** Level: **Easy** Tagging: **Remembering**

Q150. Number of seeds is equals to the

(A) Number of ovules

(B) Number of ovaries

(C) Both (a) and (b)

(D) None of these

Correct Answer: **(A)** Level: **Easy** Tagging: **Analyzing**

Q151. Out of the following choose the post-fertilisation events

(A) Endospermeogenesis

(B) Embryogenesis

(C) Both (a) and (b)

(D) Organogenesis

Correct Answer: **(C)** Level: **Easy** Tagging: **Understanding**

Q152. Ovule integument gets transformed into

(A) Seed

(B) Fruit wall

(C) Seed coat

(D) Cotyledons

Correct Answer: **(A)** Level: **Easy** Tagging: **Analyzing**

Q153. Parthenogenesis is a type of

(A) Sexual reproduction

(B) Asexual reproduction

(C) Budding

(D) Regeneration

Correct Answer: **(B)** Level: **Easy** Tagging: **Understanding**

Q154. Select the dry fruits from the following.

(A) Guava, orange and mango

(B) Groundnut and mustard

(C) Guava, groundnut and mustard

(D) Mango, guava and mustard

Correct Answer: **(B)** Level: **Easy** Tagging: **Understanding**

Q155. Sexual reproduction leads to

(A) Genetic recombination

(B) Polyploidy

(C) Aneuploidy

(D) euploidy

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q156. Stalk with which ovules attached to the placenta is called

(A) Funicle

(B) Raphe

(C) Hilum

(D) Chalaza

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q157. Tapetal cells are characterized by

(A) Mitotic division

(B) Meiotic division

(C) Endomitosis

(D) Endomitosis as well as endopolyploidy

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q158. The endosperm in angiosperm develops from

(A) Zygote

(B) Secondary nucleus

(C) Chalazal polar nucleus

(D) Micropylar polar nucleus

Correct Answer: **(B)** Level: **Easy** Tagging: **Understanding**

Q159. The ovary after fertilization is converted into

(A) Embryo

(B) Endosperm

(C) Fruit

(D) Seed

Correct Answer: **(C)** Level: **Easy** Tagging: **Understanding**

Q160. Type of cell division takes place in apomixis is

(A) Reductional

(B) Meiosis

(C) Both (a) and (b)

(D) Mitosis

Correct Answer: **(D)** Level: **Easy** Tagging: **Analyzing**

Q161. Viability of date palm seed is

(A) 2000 yr

(B) 1000 yr

(C) 500 yr

(D) 100 yr

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q162. Which of these cells is the largest cell of the ovule?

(A) Antipodal cell

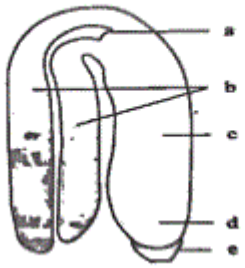
(B) Central cell

(C) Megaspore mother cell

(D) The size of the cells varies from species to species and none of the given above can be treated as largest

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Recognise the figure and fing out the correct matching.



Q163.

(A) a-radicle, b- hypocotyl, c- epicotyl, d- plumule, e- coleorthiza

(B) a- plumule, b- epicotyl, c- hypocotyl, d- radicle, e- root cap

(C) a- plumule, b- cotyledons, c- epicotyl, d- radicle ,e- root cap

(D) a- plumule, b- cotyledons, c- hypocotyl, d- radicle, e- root cap

Correct Answer: **(D)** Level: **Moderate** Tagging: **Understanding**

Q164. 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

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q165. A normal plant suddenly started reproducing parthenogenetically. The number of chromosomes of the second generation as compared to the parent will be

(A) One half

(B) One fourth

(C) Same

(D) Double

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q166. Chalazal pole is present

(A) Opposite to micropyle

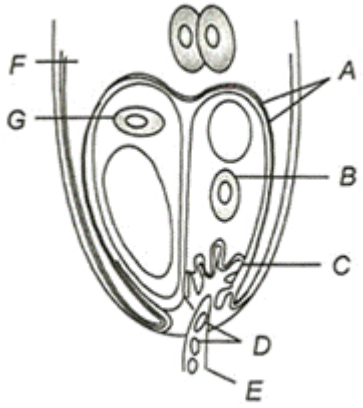
(B) At the origin of integuments

(C) Opposite to nucellus

(D) Near the embryo sac

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q167. Diagram showing entry of pollen tube to the embryo sac. Identify A to G in the diagram



(A) A-Synergid, B-Filiform apparatus, C-Male gamete, D-Plasma membrane, E-Central cell, F-Egg nucleus, G-Vegetative nucleus

(B) A- Filiform apparatus, B- Central cell, C- Egg nucleus, D- Vegetative nucleus, E- Male gamete, F-Synergid, G- Plasma membrane

(C) A- Plasma membrane, B- Synergid , C- Filiform apparatus, D- Male gamete, E- Vegetative nucleus, F-Central cell, G-Egg nucleus

(D) A- Central cell, B- Egg nucleus, C- Vegetative nucleus, D- Male gamete, E- Synergid, F-Plasma membrane

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q168. Fibrous thickenings of hygroscopic nature are found in which part of the anther wall?

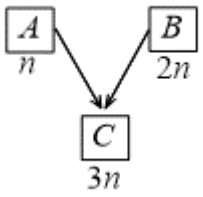
(A) Epidermis

(B) Endothecium

(C) Middle layers

(D) Tapetum

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**



Q169. Find out A,B and C in the flow chart given below

(A) A-Female gamete, B-Male gamete, C-Endosperm

(B) A- Endosperm, B- Female gamete, C- Male gamete

(C) A- Female gamete, B-Polar nuclei, C- Endosperm

(D) A- Female gamete, B- Endosperm C-Male gamete

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q170. Find out right statement (s) I. Most common endosperm is of nuclear type II. Coconut water is male gametophyte III. Coconut has both nucellar and cellular type of endosperm

(A) I, II and III

(B) I and III

(C) II and III

(D) I and II

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q171. First three layers of microsporangium which does the function of protection are

(A) Epidermis, endothecium, middle layer

(B) Epidermis, mesocarp, endocarp

(C) Epidermis, middle layer, endothecium

(D) Epidermis, endocarp, mesocarp

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q172. For a gene if AA = male plant, BB = female plant. Find out the genotype of endosperm and embryo

(A) AAB, BBA

(B) AAB, AB

(C) ABB, AB

(D) BBA, AAB

Correct Answer: **(C)** Level: **Moderate** Tagging: **Analyzing**

Q173. Functional megaspore develops into …A… also called …B… A and B in the above sentence is

(A) A-Female gametophyte; B-Embryo sac

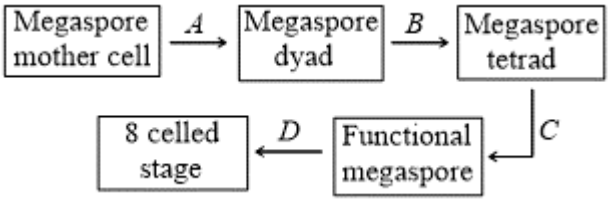
(B) A-Embryo sac; B-Female gametophyte

(C) A-Endosperm; B-Nucellus

(D) A-Microsporangium; B-Megasporangium

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q174. Give the of name the cell division type at A,B,C and D



(A) A-Meiosis-I, B-Mitosis, C-Mitosis, D-Meiosis

(B) A- Meiosis-I, B- Meiosis-II, C-No division, D- Mitosis

(C) A- Mitosis, B-No division, C- Meiosis-II, D- Meiosis-I

(D) A- Mitosis, B- Mitosis, C- Meiosis-I, D- Meiosis-I

Correct Answer: **(B)** Level: **Moderate** Tagging: **Remembering**

Q175. I. Antipodal cell II. Egg cell III. Synergid cell IV. Polar nuclei V. Male gamete VI. Nuclear cell IV. Chalazal cell Out of the seven names given above, find out haploid cells

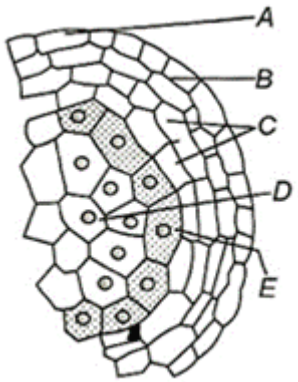
(A) I, II, IV, V

(B) II, IV, VI, VII

(C) I, II, III, V

(D) II, IV, III, I

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**



Q176. Identify A to E in the following diagram

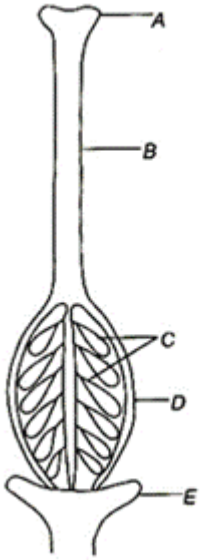
(A) A-Tapetum, B-Microspore mother cell, C-Middle layer, D-Endothecium, E-Epidermis

(B) A- Epidermis, B- Middle layer, C- Microspore mother cell, D- Tapetum, E- Endothecium

(C) A- Middle layer, B- Epidermis, C- Tapetum, D- Microspore mother cell, E- Endothecium

(D) A- Epidermis, B- Endothecium, C-Middle layer, D- Microspore mother cell, E- Tapetum

Correct Answer: **(D)** Level: **Moderate** Tagging: **Understanding**



Q177. Identify A to E in the following diagram

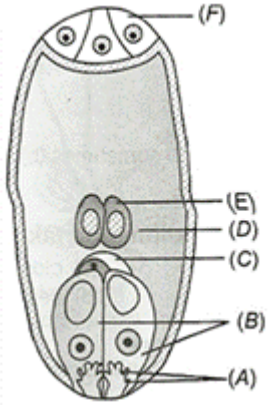
(A) A-Style, B-Stigma, C-Ovules, D-Thalamus, E-Ovary

(B) A- Ovary, B- Thalamus, C- Ovules, D- Style, E- Stigma

(C) A- Thalamus, B- Style, C- Stigma, D- Ovary, E- Ovules

(D) A- Stigma, B- Style, C- Ovules, D- Ovary, E- Thalamus

Correct Answer: **(D)** Level: **Moderate** Tagging: **Understanding**



Q178. Identify A to F in the diagram

(A) A-Egg, B-Filiform apparatus, C-Synergid, D-Antipodal cell, E-Polar nuclei, F-Central cell

(B) A-Egg, B-Synergid, C-Filiform apparatus, D-Antipodal cell, E-Central cell, F-Polar nuclei

(C) A-Central cell, B-Egg, C-Synergid, D-Antipodal cell, E-Filiform apparatus, F-Polar nuclei

(D) A-Filiform apparatus, B-Synergid, C-Egg, D-Central cell, E-Polar nuclei, F-Antipodal cell

Correct Answer: **(D)** Level: **Moderate** Tagging: **Understanding**

Q179. Identify the characters with reference to the plant in which eight nucleated embryo sac was first studied by strasburger. I – Micropyle, chalaza and funiculus are arranged in the same vertical line In the ovule.

(A) I and IV

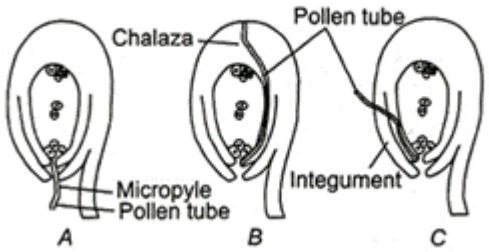
(B) II and III

(C) I and II

(D) III and IV

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q180. Identify the correct modes of entry of pollen tube in the diagrams given below



(A) A-Mesogamy, B-Chalazogamy, C-Porogamy

(B) A-Chalazogamy, B-Porogamy, C-Mesogamy

(C) A-Porogamy, B-Chalazogamy, C-Monogamy

(D) A-Porogamy, B-Mesogamy, C-Chalazogamy

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q181. Identify the correct statement.

(A) Because of marked climatic variations, plants growing near the sea shore do not produce annual rings

(B) The age of the plant can be determined by its height

(C) Healing of damaged tissue is because of the activity of sclerenchyma cells

(D) Grafting is difficult in monocot plants as they have scattered vascular bundles

Correct Answer: **(D)** Level: **Moderate** Tagging: **Understanding**

Q182. Identify the wrong statements regarding post-fertilization development.

(A) The ovary wall develops into pericarp

(B) The outer integument of ovule develops into tegmen

(C) The fusion nucleus (triple nucleus) develops into endosperm

(D) The ovule develops into seed

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q183. If the number of chromosomes in egg cell is 8, then what is the number of chromosomes on endosperm?

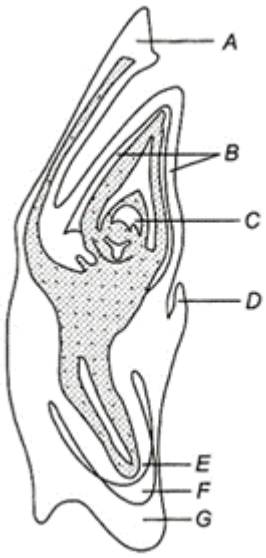
(A) 24

(B) 8

(C) 16

(D) 12

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**



Q184. In figure find out coleoptile, shoot apex and epiblast

(A) A,B and C

(B) B,C and D

(C) D,F and G

(D) E,F and G

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q185. In previous question name out I, II and III

(A) I-Radicle, II-Suspensor, III-Cotyledon

(B) I- Suspensor, II- Radicle, III- Cotyledon

(C) I- Cotyledon II- Radicle, III- Suspensor

(D) I- Suspensor, II- Cotyledon, III- Radicle

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q186. In some plants, anthers and stigmas grow and mature at same time. This phenomenon is called

(A) Homogamy

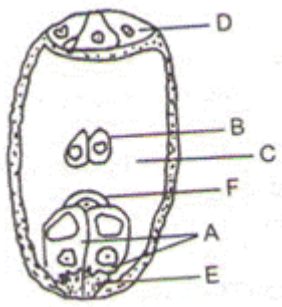
(B) Syngamy

(C) Allogamy

(D) Fusion

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q187. In the given diagram, parts labelled as A, B, C, D, E and F are respectively identified as



(A) Synergids, polar nuclei, central cell, filiform apparatus and egg

(B) Polar nuclei, egg, antipodals, central cell, filiform apparatus and polar nucei

(C) Egg, synergids, central cell, filiform apparatus, antipodals and polar nuclei

(D) Central cell, polar nuclei filiform apparatus, antipodals, synergids and egg

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q188. Male gametes wheather 2 celled or 3-celled are identical in genetic make up because

(A) Of mitosis

(B) Of meiosis

(C) Of amitosis

(D) Binary fission

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q189. Match the columns I and II, and choose the correct combination from the options given.

Column - I	Column - II
A. Apomixis	1. Mango
B. Polyembryony	2. Seedless fruit
C. Parthenocarpy	3. Asteraceae

(A) A→3, B→1, C→2

(B) A→2, B→3, C→1

(C) A→1, B→2, C→3

(D) A→3, B→2, C→1

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q190. Megaspore mother cell is found near the region of

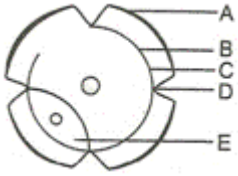
(A) Micropyle

(B) Chalaza

(C) Nucellus

(D) Integuments

Correct Answer: **(A)** Level: **Moderate** Tagging: **Analyzing**



Q191. Name the parts A, B, C, D and E in the given diagram.

(A) a) A – Germ pore B – Generative cell C – Intine D – Exine E - Vegetation cell

(B) A – Germ pore B – Generative cell C – Exine D – Intine E - Vegetation cell

(C) A – Intine B –Exine C – Germ pore D – Generative cell E - Vegetation cell

(D) A – exine B –Intine C – vegetation cell D –Germ pore E-Generative cell

Correct Answer: **(D)** Level: **Moderate** Tagging: **Understanding**

Q192. Nuclear endosperm has

(A) Every nuclear division followed by wall formation

(B) Initially free-nuclear divisions followed by wall formation

(C) First division followed by wall formation and other free nuclear

(D) None of the above

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q193. Select the correct and incorrect statement.

A. Tapetum nourishes developing pollen grains

B. Hilum represents junction between ovule and funicle

C. In aquatic plants, Water Hyacinth and Water Lily, pollination is by water

D. 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

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q194. Self-incompatibility is a device for I. Ensuring cross-pollination II. Preventing self-pollination III. Ensuring self-fertilisation IV. Genetic control for self-fertilisation Choose the correct statements from those

given above

(A) I, II and III

(B) I, II, III and IV

(C) I, III and IV

(D) I, II and IV

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q195. Self-pollination means

(A) Occurrence o male and female sex organs in the same flower

(B) Germination of pollens within the anther

(C) Transference of pollens from anther to the stigma within the same flower

(D) Transference of pollens from one flower to another on the same plant

Correct Answer: **(C)** Level: **Moderate** Tagging: **Understanding**

Q196. What would be number of chromosomes in aleurone layer if megaspore mother cell contains 10 chromosomes?

(A) 10

(B) 20

(C) 15

(D) 30

Correct Answer: **(C)** Level: **Moderate** Tagging: **Analyzing**

Q197. Which of the following floral parts forms pericarp after fertilization?

(A) Nucellus

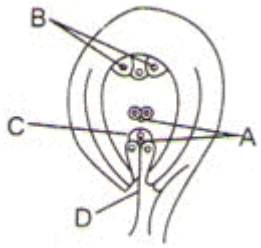
(B) Outer integument

(C) Ovary wall

(D) Inner integument

Correct Answer: **(C)** Level: **Moderate** Tagging: **Analyzing**

Q198. Which of the following indicates correct names of A, B, C and D regions of the given diagram?



(A) A– Male gamete B – Antipodals C – Egg cell D – Pollen tube

(B) A –synergids B – Secondary nucleus C – Egg apparatus D – Integuments

(C) A – Antipodals B – Male gametes C – Zygote D – Micropyle

(D) A – Secondary nucleus B – Synergids C – Egg cell D – Integuments

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q199. Which one of the following pairs of plants structures has haploid number of chromosomes?

(A) Megaspore mother cell and antipodal cells

(B) Egg cell and antipodal cells

(C) Nucellus and antipodal cells

(D) Egg nucleus and secondary nucleus

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q200. Why sometimes, even diploid offspring is produced through parthenogenesis?

(A) When offspring is produced without fertilization of diploid egg cell

(B) When offspring is produced through fertilization of diploid egg cell

(C) When offspring is produced without fertilization of haploid egg cell

(D) When offspring is produced through fertilization of haploid egg cell

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q201. Read the following statement and find out the incorrect statement.

A. Embryo development precedes endosperm development.

B. Though the seeds differs greatly the early stages of embryo development (embryogeny) are similar in both monocotyledons and dicotyledonous.

C. A typical dicotyledonous embryo consists of an embryonal axis and two cotyledons.

D. Endosperm may either be completely consumed by the developing embryo (e.g., castor and coconut) before seed maturation or it may persist in the mature seed (e.g., wheat, rice, maize, pea, groundnut and beans).

E. The coconut water from tender coconut is cellular endosperm and the surrounding kernel is the nuclear endosperm.

(A) A, B and C

(B) B, C and D

(C) C, D and E

(D) A, D and E

Correct Answer: **(D)** Level: **Difficult** Tagging: **Understanding**

Q202. Syngamy and triple fusion is called …A… . The central cell becomes …B… develops into …C… and zygote develops into …D… A, B, C, D in the above statement are

(A) A-Fusion, B-haploid, C-diploid cell, D-embryo

(B) A-double fertilization, B-PEN, C-endosperm, D-embryo

(C) A-embryo, B-endosperm, C-PEN, D-diploid cell

(D) A-PEN, B-endosperm, C-syngamy, D-fertilisation

Correct Answer: **(B)** Level: **Difficult** Tagging: **Understanding**

Q203. The correct sequence of embryogeny in dicot seed is

(A) Zygote, proembryo, globular, heart-shaped and mature embryo

(B) Zygote, globular, proembryo, heart-shaped and mature embryo

(C) Zygote, proembryo, heart-shaped,proembryo and mature embryo

(D) Zygote, globular, heart-shaped and mature embryo.

Correct Answer: **(A)** Level: **Difficult** Tagging: **Understanding**

5. Double Fertilisation

Q204. Dicot embryo consists of

(A) Radicle and plumule

(B) Radicle, plumule, cotyledons and sometimes endosperm

(C) Radicle, plumule, cotyledons and tegmen

(D) Radicle, plumule, cotyledons and tegmen and testa

Correct Answer: **(B)** Level: **Easy** Tagging: **Understanding**

Q205. Double fertilization involves

(A) Fertilization of the egg by two male gametes

(B) Fertilization of the egg in the same embryo sac by two sperms brought by one pollen tube

(C) Fertilization of the egg and the central cell by two sperms brought by different pollen tubes

(D) Fertilization of the egg and the central cell by two sperms brought by the same pollen tube

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q206. Double fertilization is fusion of

(A) Two eggs

(B) Two eggs and polar nuclei

(C) One male gamete with egg and other with synergid

(D) One male gamete with egg and other with secondary nucleus

Correct Answer: **(D)** Level: **Easy** Tagging: **Understanding**

Q207. Double fertilization occurs among

(A) Algae

(B) Bryophytes

(C) Angiosperms

(D) Gymnosperms

Correct Answer: **(C)** Level: **Easy** Tagging: **Understanding**

Q208. Double fertilization was discovered by

(A) Nawaschin

(B) Strasburger

(C) Emerson

(D) None of these

Correct Answer: **(A)** Level: **Easy** Tagging: **Remembering**

Q209. In ovule protective covering (integuments) are generally …….. in number

(A) 3

(B) 2

(C) 4

(D) 1

Correct Answer: **(B)** Level: **Easy** Tagging: **Understanding**

Q210. Nucellus forms which of the following parts of fruit?

(A) Seed coat

(B) Perisperm

(C) Seed

(D) Raphe

Correct Answer: **(B)** Level: **Easy** Tagging: **Understanding**

Q211. PEC (Primary Endosperm Cell) is formed

(A) After triple fusion

(B) Before triple fusion

(C) At the time of syngamy

(D) Always persisted

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q212. Pollen grains are shed at

(A) 1-celled stage

(B) 2- celled stage

(C) 2,3- celled stage

(D) 5- celled stage

Correct Answer: **(B)** Level: **Easy** Tagging: **Analyzing**

Q213. The number of female nuclei involved in double fertilization is

(A) 2

(B) 3

(C) 4

(D) 1

Correct Answer: **(B)** Level: **Easy** Tagging: **Analyzing**

Q214. Two nuclei with one cell are found in

(A) Antipodal cell

(B) Chalazal cell

(C) Central cell

(D) Synergid cell

Correct Answer: **(C)** Level: **Easy** Tagging: **Analyzing**

Q215. Vegetative fertilization leading to the formation of endosperm refers to

(A) Triple fusion

(B) True fertilization

(C) Syngamy

(D) Generative fertilization

Correct Answer: **(A)** Level: **Easy** Tagging: **Understanding**

Q216. Which of the following is the result of double fertilization?

(A) Cotyledon

(B) Nucellus

(C) Endosperm

(D) None of these

Correct Answer: **(C)** Level: **Easy** Tagging: **Analyzing**

Q217. Grafting is successful in dicots but not in monocots because the dicots have

(A) Vascular bundles arranged in a ring

(B) Cambium for secondary growth

(C) Vessels with element arranged end to end

(D) Cork cambium

Correct Answer: **(B)** Level: **Moderate** Tagging: **Understanding**

Q218. Haploid plants derived from microspore culture are preferred over diploids for mutation studies, because in haploids

(A) Recessive mutations express immediately

(B) Mutations are readily induced

(C) Haploid cells can be easily cultured

(D) Dominant mutations express immediately

Correct Answer: **(A)** Level: **Moderate** Tagging: **Understanding**

Q219. Triple fusion in angiosperm is the fusion of second sperm with

(A) Antipodal cell and one synergid cell

(B) Two antipodal cells

(C) Two synergid cells

(D) Two polar nuclei

Correct Answer: **(D)** Level: **Moderate** Tagging: **Remembering**

Q220. Vegetative fertilization leading to the formation of endosperm refers to

(A) Fusion of male gamete with diploid secondary nucleus

(B) Fusion of female gamete with diploid secondary nucleus

(C) Fusion of two diploid vegetative cells

(D) Fusion of two male gametes

Correct Answer: **(C)** Level: **Moderate** Tagging: **Analyzing**