BIOLOGY

BOOKS - FULL MARKS BIOLOGY (TAMIL ENGLISH)

ASEXUAL AND SEXUAL REPRODUCTION IN PLANTS

Textual Questions Solved

1. Choose the correct statement from the following

A. Gametes are involved in asexual reproduction

B. Bacteria reproduce asexually by budding

C. Conidia formation is a method of sexual reproduction

D. Yeast reproduce by budding

Answer: C

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2. An eminent Indian embryologist is

A. S.R. Kashyap

B. P.Maheswari

C. M.S Swaminathan

D. K.C Mehta

Answer: B

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3. Identify the correctly matched pair

A. Tuber -Allium cepa

B. Sucker - Pistia

C. Rhizome - Musa

D. Stolon - Zingiber

Answer: C

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4. Pollen tube was discovered by

A. J.G Kolreuter

B. G.B Amici

C. E. Strasburger

D. E. Hanning

Answer: B

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5. Size of pollen grains in Myosotis

A. 10 micrometer

B. 20 micrometer

C. 200 micrometer

D. 2000 micrometer

Answer: A

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6. First cell of male gametophyte in angiosperm is

A. Microspore

B. Megaspore

C. Nucleus

D. Primary Endosperm Nucleus

Answer: A

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7. Match the following .....

I) External fertilizaion	(i) pollen gain
II) Androecium	(ii) anther wall
III) Male gametophyte	(iii) algae
Iv) Primary parietal layer	(iv) stamens

A. $I-(iv), II-(i), III-(ii), IV-(iii)$

B. $I-(iii), II-(iv), III-(i), IV-(ii)$

C. $I-(iii), II-(iv), III-(ii), IV-(i)$

D. $I-(iii), II-(i), III-(iv), IV-(ii)$

Answer: B

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8. Arrange the layers of anther wall from locus to periphery

A. Epidermis , middle layers , tapetum , endothecium

B. Trapetem , middle layers , epidermis , endothecium

C. Endothecium , epidemis , middle layers , tapetum

D. Tapetum , middle layers endothecium epidermis

Answer: D

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9. Identify the incorrect pair from the below:

A. sporopollenin - exine of pollen grain

B. tapetum - nutritive tissue for developing microspores

C. Nucellus - nutritive tissue for developing embryo

D. obturator - directs the pollen tube into micropyle

Answer: C

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10. Assertion : Sporopollenin preserves pollen in fossil deposits.

Reason : Sporopollenin is resistant to physical and biological decomposition

A. assertion is true , reason is false

B. assertion is false , reason is true

C. Both Assertion and reason are not true.

D. Both Assertion and reason are true.

Answer: D

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11. Choose the correct statement (s) about tenuinucellate ovule

A. Sprogenous cell is hypodermal

B. Ovules have fairly large nucellus

C. sporogenous cell is epidermal

D. ovules have single layer of nucellus tissue

Answer: A

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12. Which of the following represent megagametophyte ?

A. Ovule

B. Embryo sac

C. Nucellus

D. Endosperm

Answer: B

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13. In Haplopappus gracilis , number of chromosomes in cells of nucellus is 4. What will be the chromosome number in Primary endosperm cell ?

A. 8

B. 12

C. 6

D. 2

Answer: B

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14. Transmitting tissue is found in

A. a) Micropylar region of ovule

B. b) Pollen tube wall

C. c) Stylar region of gynoecium

D. d) Integument

Answer: C

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15. The scar left by function in the seed is

A. tegmen

B. radicle

C. epicotyl

D. hilum

Answer: D

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16. A Plant called X possesses small flower with reduced perianth and versatile anther . The probable agent for pollination would be

A. water

B. air

C. butterflies

D. beetles

Answer: B

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17. Consider the following statement(s)

In Protandrous flowers pistil matures earlier

In Protogynous flowers pistil matures earlier

Herkogamy is noticed in unisexual flower.

Distyly is present in Primula.

A. i and ii are correct

B. ii and iv are correct

C. ii and iii are correct

D. i and iv are correct

Answer: B

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18. Coelorhiza is found in

A. Paddy

B. Bean

C. Pea

D. Tridax

Answer: A

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19. Parthenocarpic fruits lack

A. Endocarp

B. Epicarp

C. Mesocarp

D. seed

Answer: D

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20. In majority of plants pollen is liberated at

A. 1 celled stage

B. 2 celled stage

C. 3 celled stage

D. 4 celled stage

Answer: B

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21. What is reproduction?

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22. Mention the contribution of Hofmeister towards Embryology.

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23. List out two sub-aerial modification with example.

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24. What is layering ?

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25. What are clones ?

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26. A detached leaf of Bryophyllum products new plants. How ?

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27. Differentiate Grafting and Layering.

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28. Tissue culture is the best method for propagating rare and endangered plant species .

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29. Distinguish mound layering and air layering.

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30. Explain the conventional methods adopted in vegetative propagation of higher plants.

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31. Highlight the milestones from the history of plant embryology.

Milestones in Plant Embryology.

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32. Discuss the importance of Modern methods in reproduction of plant.

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33. What is Cantharophily ?

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34. List any two strategy adopted by bisexual flowers to prevent self-pollination .

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35. What is endothelium ?

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36. ' The endosperm of angiosperm is different from gymnosperm " . Do you agree . Justify your answer.

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37. Define the term Diplospory .

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38. What is polyebryony ? How it can be commercially exploited.

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39. Why does the zygote divides only after the division of Primary endosperm cells ?

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40. What is mellitophily ?

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41. Endothecium is associated with dehiscence of anther Justify the statement .

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42. List out the function of tapetum .

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43. Write short note on Pollen kitt.

Watch Video Solution

44. Distinguish tenuinucellate and crassinucellate ovules.

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45. Pollination In Gymnosperms is different Angiosperms' – Given reasons.

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46. Write short note on Heterostyly.

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47. Enumerate the characteristics feature of Entomophilous flowers.

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48. Discuss the steps involved in Microsporogenesis .

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49. With a suitable diagram explain the structure of an ovule . Structure of ovule (Megasporangium) :

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50. Give a concise account on steps involved in fertilization of an angiosperm plant.

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51. What is endosperm ? Explain the types.

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52. Differentiate the features of Monocot and Dicot leaf.

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53. Give a detailed account on parthencarpy. Add a note on its significance.

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Additional Questions 1 Mark Questios

1. Match the following :

(1) Conidia	(i) Yeast
(2) Budding	(ii) Bacteria
(3) Gamma cups	(iii) Aspergillus
(4) Binary fission	(iv) Marchantia

A. 1 - (iii) , 2- (i) , 3 - (iv) , 4 - (ii)

B. 1 - (ii) , 2- (iv) , 3 - (iii) , 4 - (i)

C. 1 - (iv) , 2- (ii) , 3 - (i) , 4 - (iii)

D. 1 - (iii) , 2- (i) , 3 - (iv) , 4 - (ii)

Answer: A

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2. The unit of reproductive structure used in vegetative propagation is called as .....

A. Diplospores

B. Aplanospores

C. Diaspores

D. Condiospores

Answer: C

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3. Which of the following aquatic plant is popularly known as the " Terror of Bengal " ?

A. a) Eichornia crassipes

B. b) Vallisneria spiralis

C. c) Pistia stratiotes

D. d) Zostera marina

Answer: A

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4. Identify the incorrect statement regarding vegetative reproduction.

A. a) Only one parent is required for propagation.

B. b) New individuals are genetically dissimilar.

C. c) Easy mode of reproduction.

D. d) Variation does not exist.

Answer: B

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5. A property of plant cells enabling it to produce a entire plant from a tissue _____.

A. Multipotency

B. Totipotency

C. Pleuripotency

D. Differentiation

Answer: B

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6. A typical anther is .....

A. a) Bisporangiate

B. b) Tetrasporangiate

C. c) Unisporangiate

D. d) Multisporangiate

Answer: B

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7. Match the following :

Vegetative Reproductive structures	Plants
(1) Rhizome	(i) Allium cepa
(2) Tunicated bulb	(ii) Zingiber officinale
(3) Corm	(iii) Pistia stratiotes
(4) Offset	(iv) colocasia

A. 1 - (ii) , 2 - (i), 3 - (iv) , 4 - (iii)

B. 1 - (ii) , 2 - (iv), 3 - (iii) , 4 - (i)

C. 1 - (iv) , 2 - (ii), 3 - (i) , 4 - (iii)

D. 1 - (i) , 2 - (iii), 3 - (ii) , 4 - (iv)

Answer: A

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8. Innermost layer of anther wall is .....

A. a) Endothecium

B. b) middle layer

C. c) epidermal

D. d) Tapetum

Answer: D

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9. Identify the mismatched pair :

A. Epidermal layer -Protective infunction

B. Endothecium layer -Helps in dehiscence of anther

C. Middle layer -Persistent layer

D. Tapetum -Nutritive in function

Answer: C

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10. Who discovered the pollen tube ?

A. E. Straburger

B. Hofmeister

C. Nehemiah Grew

D. G.B. Amici

Answer: D

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11. Identify the mismatched pair :

i. Sucker - Chrysanthemum
ii Bulbils - Agave
iii. Stolon - Fragaria
iv. Runner -Lilium

A. i only

B. ii only

C. iii only

D. iv only

Answer: D

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12. Assertion (A) : Epidermis is protective in function .

Reason (R) : Epidermis is outermost unilayer of anther wall.

A. a) A is correct R is incorrect

B. b) R explains A

C. c) Both A and R are incorrect

D. d) Both A and R are correct . R does not explain R.

Answer: B

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13. Assertion (A) : Microspores are the first cell of male gametophyte.

Reason (R) : Microspores undergo development and forms pollen grains.

A. A is correct R is incorrect

B. R explains A

C. Both A and R are incorrect

D. Both A and R are correct . R does not explain R.

Answer: B

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14. Assertion (A) : Carica papaya is a dioecious plant.

Reason (R) : Both male and female are borne on same plant.

A. A is correct R is incorrect

B. R explains A

C. Both A and R are incorrect

D. Both A and R are correct . R does not explain R.

Answer: A

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15. Assertion (A) : Anemophilous pollination occurs by animals.

Reason (R) : Pollen grains are sticky for easy attachment on animals.

A. A is correct R is incorrect

B. R explains A

C. Both A and R are incorrect

D. Both A and R are correct . R does not explain R.

Answer: C

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16. Assertion (A) : Fusion of male and female gametes results in zygotes.

Reason (R) : Product of triple fusion is PEN.

A. A is correct R is incorrect .

B. R explains A

C. Both A and R are incorrect

D. Both A and R are correct . R does not explain A.

Answer: D

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17. Assertion (A) : Zea mays is monocotylednous plant.

Reason (R) : Shield shaped cotyledon is called scutellum.

A. A is correct R is incorrect .

B. R explains A

C. Both A and R are incorrect

D. Both A and R are correct . R does not explain A.

Answer: B

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18. Assertion (A) : In Bryophyllum, vegetative propagation , occurs through leaf .

Reason (R) : Epiphyllous buds are noticed in Bryophyllum.

A. A is correct R is incorrect .

B. R explains A

C. Both A and R are incorrect

D. Both A and R are correct . R does not explain R.

Answer: B

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19. Assertion (A) : Androecium and Gynoecium are essential whorls of flower

Reason (R) Androecium and Gynoecium assist the reproduction.

A. A is correct R is incorrect .

B. R explains A

C. Both A and R are incorrect

D. Both A and R are correct . R does not explain R.

Answer: A

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20. Identify the correct statement from the following:

A. Grafting is a modern method of artificial propagation.

B. The plant which is used for graft is scion.

C. In tongue grafting , the scion bud is placed inside the incision beneath bark.

D. Grafting is usually carried out in monocot plants.

Answer: B

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21. Statement 1 : Flower is a highly condensed shoot for reproductive purpose.

Statement 2 : A complete flower possess four whorls.

A. Both the statements are incorrect.

B. Statement 1 is correct and Statement 2 is incorrect .

C. Both the statements are correct

D. Statement 1 is incorrect and statement 2 is correct.

Answer: C

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22. Identify the incorrect statement

A. One seeded fruit of paddy is caryopsis.

B. Primitive root is called coleorhiza.

C. Scutellum is a part of monocot seed.

D. Embryonic axis above the cotyledon is epicotyl.

Answer: B

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23. Cleavage polyembryony is noticed in .....

A. Orchids

B. Casuarina

C. Balanophora

D. Syzgium

Answer: A

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24. Pick out the non - spermous seed

A. Wheat

B. Sunflower

C. Bean

D. Orchids

Answer: C

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25. The type of endosperm noticed in Hydrilla a seed is .....

A. Ruminate endosperm

B. Nuclear endosperm

C. Cellular endosperm

D. Helobial endosperm

Answer: D

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26. Which is not a part of mature seed ?

A. Funiculus

B. Testa and tegma

C. hilum

D. Chalaza

Answer: D

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27. Select the wrong statement (s) regarding cross pollination

(a) Pollination depends on external agent and so it is certain.

(b) New varieties are produced.

(c) Continuous cross pollination leads to weaker progeny.

(d) Germination capacity is highly declined.

A. a and d

B. b and c

C. a,b and d

D. a , c and d

Answer: D

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28. Which of the following characters does not exist in Ornithophilous flowers ?

A. a) Huge sized flowers

B. b) Bright coloured

C. c) Scented flowers

D. d) Nectar is secreted in large

Answer: C

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29. Which of the following plant was introduced as a contaminant into India along with wheat ?

A. a) Parthenium hysterphorus

B. b) Zea mays

C. c) Rosa indica

D. d) Mangifera indica

Answer: A

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30. .....is a carotenoid derivative of exine layer which provides resistance to pollen grains.

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31. Common type of ovule found in majority of the plants ..... .

A. Orthotropus

B. Anatropous

C. Campylotropus

D. Amphitropous

Answer: B

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32. Identify the incorrect statement about the Gram positive bacteria

A. The stalk of the ovule is funiculus.

B. Nucellus is composed of sclerenchymatous tissue.

C. Basal region of the ovule is chalaza end.

D. Micropyle is always oriented opposite to chalaza.

Answer: B

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33. Generally the pollen grains are liberated from anther at .....

A. 2- celled stage

B. 4- celled stage

C. 6- celled stage

D. 8- celled stage

Answer: A

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34. Assertion (A) : Self - pollination is certain in cleistogamous flowers.

Reason (R) : Flowers never open and not expose reproductive organs.

A. a) Both A and R are incorrect .

B. b) A is correct R is incorrect

C. c) R explains A.

D. d) Both A and R are correct . R is not a correct explanation for A

Answer: C

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35. Assertion (A) : Entamophily is the most common type of pollination

Reason (R) : Birds and animals brings out effective pollination.

A. a) Both A and R are incorrect .

B. b) A is correct R is incorrect

C. c) R explains A.

D. d) Both A and R are correct . R is not a correct explanation for A

Answer: D

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36. Statement 1 : Primary sporogenous cell functions as megaspore mother cell.

Statement 2 : Megaspore mother cell undergoes mitotic division producing megaspores .

A. Statement 1 is correct and statement 2 is incorrect

B. Statement 1 is incorrect and Statement 2 is correct .

C. Both the statements 1 and 2 correct .

D. Both the statements 1 and 2 incorrect .

Answer: A

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37. Statement 1 : Apomixis does not involve meiosis and syngamy.

Statement 2 : The term Apomixis was introduced by Winkler.

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

B. b) Statement 1 is incorrect and Statement 2 is correct .

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

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

Answer: C

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38. Statement 1: The pollen grains are deposited on the receptive surface of style .

Statement 2 : After landing , the first visible change in pollen is hydration.

A. Statement 1 is correct and statement 2 is incorrect

B. Statement 1 is incorrect and Statement 2 is correct .

C. Both the statements 1 and 2 correct .

D. Both the statements 1 and 2 incorrect .

Answer: B

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39. Which of the following post fertilization change is incorrectly matched ?

A. secondary nucellus - Endosperms

B. Antipodals - Degenerates

C. Nucellus - Testa and tegma

D. Funicle - Seed stalk

Answer: C

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40. Indentify the parthenocarpic fruit

A. Antropus

B. Hemianatropus

C. Campylotropus

D. Amphitropous

Answer: D

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41. A mature angiospermic embryo sac is ..... .

A. 8 celled and 8 nucleated

B. 7 celled and 8 nucleated

C. 8 celled and 7 nucleated

D. 7 celled and 8 nucleated

Answer: B

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42. Identify the type of ovule, where the nucellus acquires a horse - shoe shaped structure.

A. a) Anatropous

B. b) Hemianatropous

C. c) Campylotropous

D. d) Amphitropous

Answer: D

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43. The egg aparatus is made up of .....

A. 1 egg cell and 2 antipodals

B. 1 egg cell and 2 polar nuclei

C. 1 egg cell and 1 secondary nuycleus

D. 1 egg cell and 2 synergids

Answer: D

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44. Match the following :

(1) Hemianatropus	(i) hilum , micropyle and chalaza of ovule lie adjecent
(2) Circintropus	(ii) body of ovule is at right angles to funiculus
(3) Campylotropus	(iii) completed inverted ovule
(4) Anatropus	(iv) Elongated funiculus surrounds ovule

A. a) 1 - (iii) , 2- (i) , 3 - (iv) , 4 - (ii)

B. b)1 - (ii) , 2- (iv) , 3 - (i) , 4 - (iii)

C. c) 1 - (iv) , 2- (ii) , 3 - (i) , 4 - (iii)

D. d) 1 - (i) , 2- (iii) , 3 - (ii) , 4 - (iv)

Answer: B

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45. What is triple fusion ?

A. PEN

B. PEG

C. PVC

D. PPT

Answer: A

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46. Ex - albuminous seeds are .....

A. a) Pea , castor paddy

B. b) Paddy , Coconut , Groundnut

C. c) Beans , coconut , castor

D. d) Groundnut , pea , beans

Answer: D

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47. What is the edible part in Conconut?

A. Epicarp

B. Endosperm

C. Embryo

D. Mesocarp

Answer: B

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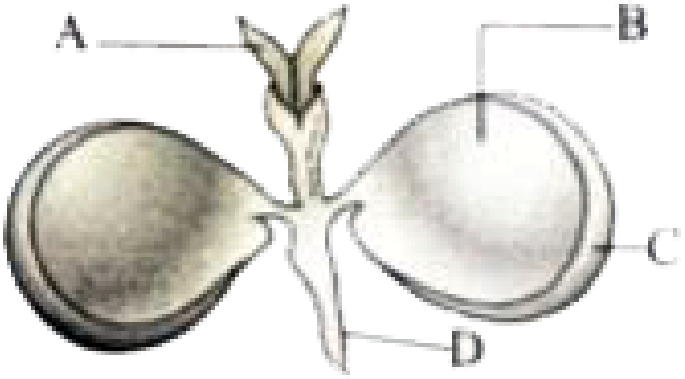
48. Observe the diagram and select the correct option mentioning the part A,B,C and D



A. a) $\begin{matrix} A & B & C & D \\ \text{Radicle} & \text{cotyldedon} & \text{Testa} & \text{Plumule} \end{matrix}$

B. b) $\begin{matrix} A & B & C & D \\ \text{Plumule} & \text{cotyldedon} & \text{Testa} & \text{Radicle} \end{matrix}$

C. c) $\begin{matrix} A & B & C & D \\ \text{cotyldedon} & \text{Testa} & \text{Plumule} & \text{Radicle} \end{matrix}$

D. d) $\begin{matrix} A & B & C & D \\ \text{Plumule} & \text{Radicle} & \text{Testa} & \text{cotyldedon} \end{matrix}$

Answer: B

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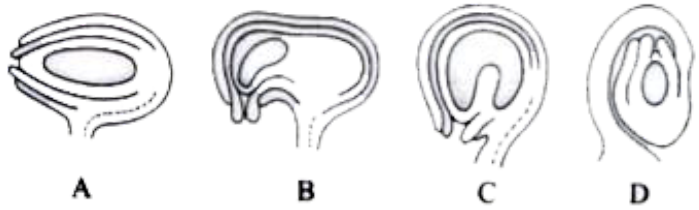
49. Examine the figures and name the respective type of ovule.



A. a)

A	B	C	D
Campylotropus	Amphitropus	Circinotropus	Anatropus

B. b)

A	B	C	D
Anatropus	Hemianatropus	Amphitropus	Campylotropus

C. c)

A	B	C	D
Campylotropus	Circinotropus	Hemianatropus	Anatropus

D. d)

A	B	C	D
Hemianatropus	Campylotropus	Amphitropus	Circinotropus

Answer: D

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50. Attractants and rewards are required for .....

A. a) Anemophily

B. b) Entamophily

C. c) Malacophily

D. d) Cheiroptrophily

Answer: B

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51. Filiform apparatus is a special cellular thickening which is seen in .....

A. Antipodals

B. Polar nuclei

C. Nucellus

D. Synergids

Answer: D

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52. In anatropous ovule, the micropyle faces.....

A. a) Right side

B. b) Left side

C. c) Upward

D. d) Downward

Answer: D

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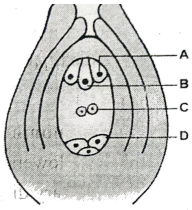
53. Observe the diagram and select the correct option mentioning the parts A,B,C and D.



8-nucleate stage

	A	B	C	D
(a)	Synergid	Egg	polar nuclei	Antipodals
(b)	Antipodals	Synergid	polar nuclei	Egg
(c)	Egg	Synergid	Antipodals	polar nuclei
(d)	Antipodals	polar nuclei	Egg	Synergid

A. $\underset{\text{Synergid}}{A}\ \underset{\text{Egg}}{B}\ \underset{\text{polar nuclei}}{C}\ \underset{\text{Antipodals}}{D}$

B. $\underset{\text{Antipodals}}{A}\ \underset{\text{Synergid}}{B}\ \underset{\text{polar nuclei}}{C}\ \underset{\text{Egg}}{D}$

C. $\underset{\text{Egg}}{A}\ \underset{\text{Synergid}}{B}\ \underset{\text{Antipodals}}{C}\ \underset{\text{polar nuclei}}{D}$

D. $\underset{\text{Antipodals}}{A}\ \underset{\text{polar nuclei}}{B}\ \underset{\text{Egg}}{C}\ \underset{\text{Synergid}}{D}$

Answer: A

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54. Identify the correct adaptation that checks autogamy

A. Homogamy

B. Cleistogamy

C. Herkogamy

D. None of the above

Answer: C

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55. In monoecius plants,

A. Both autogamy and geitonogamy are prevented

B. Both autogamy and geitonogamy are takes place

C. Autogamy takes place prventing geitonogamy

D. Autogamy is prevented whereas geitonogamy takes place .

Answer: D

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56. Antipodals are located at .....of embryo sac.

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57. Identify the correct sequence of anther wall layers from periphery towards core part.

A. Epidermis $\rightarrow$ endothelium $\rightarrow$ stomium $\rightarrow$ tapetum

B. Epidermis $\rightarrow$ middle layer $\rightarrow$ endothelium $\rightarrow$ endothelium

C. Epidermis $\rightarrow$ endothelium $\rightarrow$ middle layers $\rightarrow$ tapetum

D. Epidermis $\rightarrow$ endothelium $\rightarrow$ endothecium $\rightarrow$ tapetum

Answer: C

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58. The proteins responsible for rejection present in exine cavities of pollen is a derivative of .....

A. Stomium

B. Endothecium

C. Tapetum

D. Ubisch bodies

Answer: C

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59. Pick out the mismatched

A. a) Entamophily -Insects

B. b) Malacophily -Mammals

C. c) Cheiropterophily -Bats

D. d) Ornithophily -Birds

Answer: B

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60. Which is the most common type of style seen in monocots ?

A. Open type

B. Closed type

C. Solid type

D. Half closed type

Answer: A

View Text Solution

Additional Questions 2 Mark Questios

1. Write the name of organisms that undergo the following of asexual reproduction.

(a) Budding (b) fragmentation (c) Regeneration (d) Gemma cup formation.

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2. What are diaspores ?

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3. Name the vegetative propagules of the following plants .

(a) Allium cepa (b) Zingiber officinalis (c) Agave (d) Colocasia

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4. Write the advantages of natural vegetative reproduction.

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5. Mention the conventional propagation techniques.

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6. What do you mean by terms 'stock ' and 'scion' in grafting technique ?

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7. Write the types of grafting,

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8. What is meant by Totipotency?

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9. What does the term micropropagation refer to ?

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10. Name the whorls of a flower .

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11. Write any four valid points on Androecium

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12. What is pollinium?

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13. Give a comparative account on the wall layers of Anther.

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14. Tapetum is dual in origin - Justify .

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15. Name the two types of tapetum. Mention any one function of tapetum.

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16. Differentiate between Exine and Intine of pollen grain.

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17. What are the chemical components that make up the wall layers of pollen grains ?

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18. Draw and label the structure of a typical pollen grain.

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19. At which cellular stage , does the pollen grains are usually liberated from the anther

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20. Write the equivalent botanical terms for the following words / sentences.

(a) Landing platform of pollen (b) Ovarian cavity

(c) Megasporangium (d) Basal swollen part of pistill

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21. What is Nucellus ?

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22. What is integumentary tapetum ?

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23. Mention the types of ovule seen in the members of

(a) Cactaceae (b) Leguminosae, (c) Polygonaceae (d) Primulaceae.

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24. What does the term 'Bisporic development of embryo sac ' refers to ?

Give example .

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25. State the role of filiform apparatus found in embryo sac of angiosperm.

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26. What is pollination ? Mention its types.

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27. Why pollination in gymnosperm is said to be direct ?

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28. Define Homogamy with an example

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29. What is cross - pollination ? What are its types ?

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30. Distinguish between monoecious and dioecious plants .

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31. Define the following terms .

(a) Protandry (b) Protogyny

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32. What is Heterostyly ? Give example.

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33. How self - pollination is avoided in Abutilon ?

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34. Name the agents of the following tyes of pollination.

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35. Give any four unique characters exhibited by anemophilous flowers.

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36. How the pollen grains of Vallisneria protect themselves ?

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37. Point out the differences between anemophilous flowes and ornithophilous flowers.

Watch Video Solution

38. Write the advantages and disadvantages of self-pollination.

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39. What is pollen pistil interaction ?

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40. List the post fertilization changes in a flower .

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41. What is perisperm ?

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42. What happens to the following floral parts , after the fertilization process ?

(a) Ovary (b) Secondary nucleus (c) Outer integument of ovule (d) Funicle

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43. What is ploidy?

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44. Coconut is an albmunious seed why ?

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45. Name the types of endosperm based on development.

Watch Video Solution

46. What is scutellum ?

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47. What is cloeoptile and coleorhiza ?

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48. Who coined the term Apomixis ? Define it.

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49. What are parthenocarpic fruits?

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Additional Questions 3 Mark Questios

1. How tongue grafting differs from wedge grafting ?

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2. List any three advantages of micropropagation.

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3. Where the stomium is located ? What is its role ?

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4. Briefly explain about the types of tapetum.

Watch Video Solution

5. Enumerate the functions of tapetum.

Watch Video Solution

6. State the significance of sporopollenin.

Watch Video Solution

7. What do you know about bee pollen ?

Watch Video Solution

8. Write a short note on pollen kitt.

Watch Video Solution

9. Draw and label the structure of a mature embryo sac of angiosperms.

Watch Video Solution

10. How many synergid cells are there in an mature embryo sac . Mention any two major role of synergids.

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11. A mature female gametophyte (embryo sac/egg apparatus) of angiosperms is 7 celled with 8 nucleus . Name the individual cells and mention their count.

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12. Differentiate between chasmogamy and cleistogamy.

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13. Geitonogamy is similar to autogamy . Justify the statement .

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14. Explain the Herkogamy mechanism with suitable examples

Watch Video Solution

15. Given a brief account on pollination process in Zea mays.

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16. Explain the role of water as a pollinating agent in Vallisneria spiralis.

Watch Video Solution

17. Enumerate the characters of ornithophilous flowers.

Watch Video Solution

18. How the flowers of salvia are adoped for mellitophily?

Watch Video Solution

19. Write down the advantages and disadvantages of cross-pollination.

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20. Why pollination has to occur ?

Watch Video Solution

21. How the pollen germination and compatibility is regulated by stigma of Gynoecium ?

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22. Give a brief account on solid style.

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23. Exaplain the types of entry of pollen tube into the ovule.

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24. What is the fate of pollen tube after reaching the embryo sac?

Watch Video Solution

25. What is triple fusion ?

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26. Write a short note on endosperm.

Watch Video Solution

27. How nuclear endosperm is different from cellular endosperm

Watch Video Solution

28. Give an account on Helobial endosperm.

Watch Video Solution

29. Differentiate between albuminous seed and ex - albuminous seed.

Watch Video Solution

30. Draw and label the structure of nuclear endosperm and Helobial endosperm.

Watch Video Solution

31. Point out the function of endosperm.

Watch Video Solution

32. What are the components of mature dicot embryo.

Watch Video Solution

33. What is apospory ?

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Additional Questions 5 Mark Questios

1. Give a comparative account on the wall layers of Anther.

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2. Explain the development process of male gametophyte.

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3. Explain any five types of angiospermic ovules .

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4. Describe the development of monrospric embryo sac.

Watch Video Solution

5. Enumerate the characters of anemophilous flowers

Watch Video Solution

6. Describe the structure of a dicot seed .

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Higher Order Thinking Skills Hots Questions

1. Cleistogamous flower and chasmogamous flower. In which type does the autogamy is certain ? Why ?

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2. Position of essential whorls and inhibition autogamy in Gloriosa superba - comment .

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3. Anemophilous flowers produce abundant pollen grains . Give reason.

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4. Observe the picture and answer the questions.

(a) Label the part - A

(b) Name the types of vegetative propagule

Give one example for such type of vegetative propagule.

*

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5. Arrange the following events in a proper sequence.

Embryogenesis , Zygote formation, Syngamy, Gametogenesis

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6. Name the process through which microspore tetrads are formed . What would be the ploidy of the cells of tetrad ?

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7. Anemophilous flowers are colourless and non - scented . What may be the reason ?

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8. If you break open the coconut fruit, we can observe a fluid part and the white kernel.

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9. Cite one common feature and one contrast feature shared between apomixis and parthenocarpy.

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