BYJU'S Study Planner for Board Term I
(CBSE Grade 12)

Date: 09/11/2021

Subject: Biology

Topic : Sexual Reproduction in Flowering Plants

Class: Standard XII

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1. A typical angiosperm anther has how many lobes?

   A. 1

   B. 2

   C. 3

   D. 4

2. Wind pollination is common in which of the following plants?

   A. *Oxalis*

   B. Corn

   C. *Viola*

   D. *Zostera*

3. How many meiotic divisions are required for formation of 100 functional megaspores?

   A. 100

   B. 50

   C. 25

   D. 75

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4. What is perisperm?

   A. Remnant of endosperm

   B. Persistent nucellus

   C. Peripheral part of endosperm

   D. Disintigrated secondary nucleus

5. Which of the following structures facilitates the entry of oxygen and water in the seed?

   A. Hilum

   B. Filiform apparatus

   C. Micropyle

   D. None of these

6. An aggregate fruit develops from:

   A. Multicarpellary syncarpous gynoecium

   B. Multicarpellary apocarpous gynoecium

   C. Complete inflorescence

   D. Multicarpellary syncarpous ovary

7. Transfer of pollen grains from one flower to another flower of the same plant is known as

   A. geitonogamy

   B. autogamy

   C. xenogamy

   D. cleistogamy

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(CBSE Grade 12)

8. Which is most crucial for storage of seeds?

   A. Dehydration and dormancy

   B. Endosperm and water

   C. Least amount of development

   D. Endosperm in large quantity

9. Ploidy of endosperm will be ____ if the male and female parents are hexaploid and tetraploid respectively:

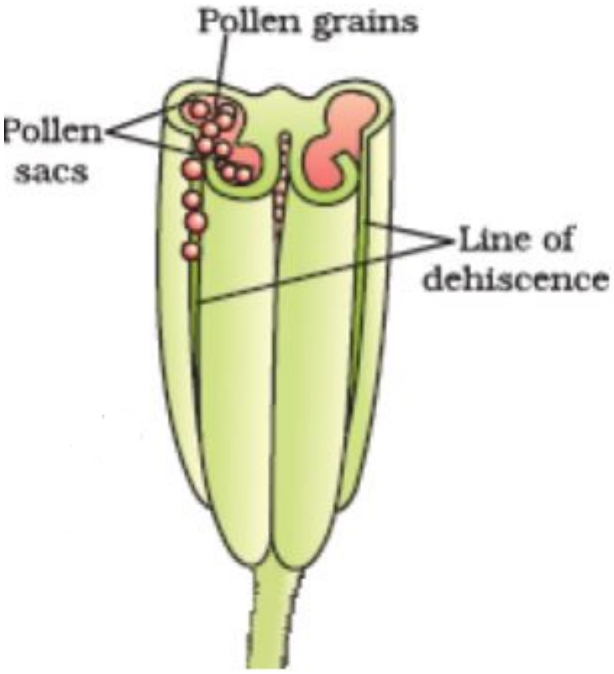
   A. 8n

   B. 7n

   C. 16n

   D. 10n

10. Classify the following transverse section of anther into appropriate categories:



A. Bilobed, monothecous

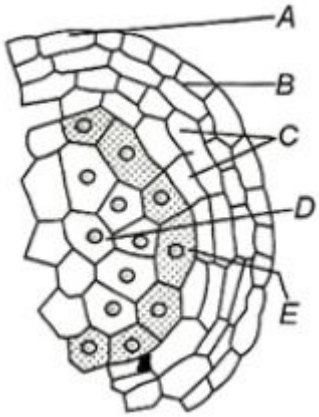
B. Unilobed, monothecous

C. Unilobed, dithecous

D. Bilobed, dithecous

BYJU'S Study Planner for Board Term I
(CBSE Grade 12)

11. Identify A to E in the following diagram.



A. A - Tapetum, B - Microspore mother cell, C - Middle layers, D - Endothecium, E - Epidermis

B. A - Epidermis, B - Middle layers, C - Microspore mother cell, D - Tapetum, E - Endothecium

C. A - Middle layers, B - Epidermis, C - Tapetum, D - Microspore mother cell, E - Endothecium

D. A - Epidermis, B - Endothecium, C - Middle layers, D - Microspore mother cell, E - Tapetum

12. Which substance constitutes the outer hard layer of pollen grain?

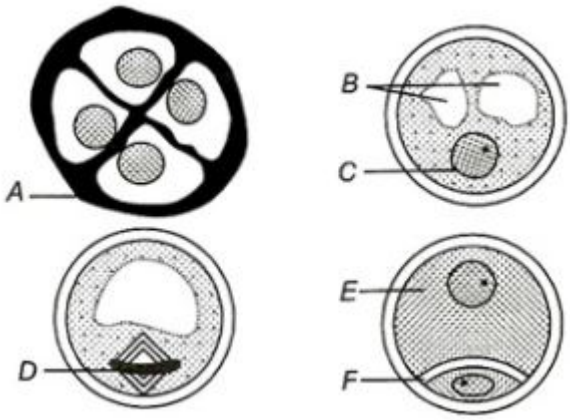
A. Exine

B. Intine

C. Sporopollenin

D. Cellulose

13. Identify the structures marked A to F in the given diagram.



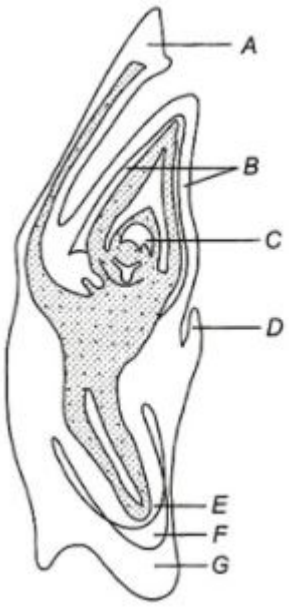
A. A-Asymmetric nucleus, B-Nucleus, C-Generative cell, D-Vegetative cell, E-Pollen, F-Pollen tetrad

B. A- Pollen tetrad, B- Pollen, C-Generative cell, D-Vegetative cell, E-Asymmetric spindle, F-Nucleus

C. A-Pollen tetrad, B-Vacuole, C-Nucleus, D-Asymmetric spindle, E-Vegetative cell, F-Generative cell

D. A-Vacuole, B-Nucleus, C-Pollen tetrad, D-Vegetative cell, E-Asymmetric spindle, F-Generative cell

14. In the figure given below, find out coleoptile, shoot apex and epiblast respectively.



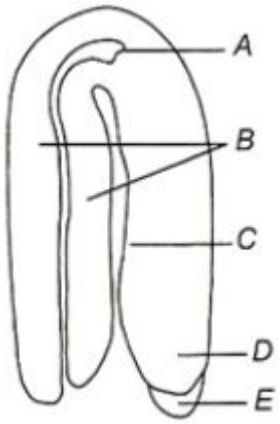
A. A, B and C

B. B, C and D

C. D, F and G

D. E, F and G

15. Identify the parts labelled from A to E in the following diagram.



A. A - Cotyledons, B - Hypocotyl, C - Plumule, D - Root cap, E -Radicle

B. A - Radicle, B - Root cap, C - Plumule, D - Hypocotyl, E - Cotyledons

C. A - Hypocotyl, B - Cotyledons, C - Plumule, D - Radicle, E - Root cap

D. A - Plumule, B - Cotyledons, C - Hypocotyl, D - Radicle, E - Root cap

16. Assertion: Pollen grains are well preserved as fossils.
Reason: The outer layer of pollen grains called the exine is made up of sporopollenin.

A. Both assertion and reason are true and reason is the correct explanation of assertion

B. Both assertion and reason are true but reason is not the correct explanation of assertion

C. The assertion is true but reason is false

D. Both assertion and reason are false

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17. Assertion: Tapetal cells usually possess dense cytoplasm and never more than one nucleus.
Reason: Tapetal cells undergo mitosis which generally involves division of nucleus but cytokinesis does not happen.

A. Both assertion and reason are correct and the reason is the correct explanation to the assertion

B. Both assertion and reason are correct but the reason is an incorrect explanation to the assertion

C. Only assertion is correct

D. Only reason is correct

18. Study the following statements and choose the correct option.
I - Tapetum nourishes the developing pollen grains.
II - Hilum represents the junction between ovule and funicle.
III - In aquatic plants such as water hyacinth and water lily, pollination is by water.
IV - The primary endosperm nucleus is triploid.

A. I and II are correct but III and IV are incorrect

B. I, II and IV are correct but III is incorrect

C. II, III and IV are correct but I is incorrect

D. I and IV are correct but II and III are incorrect

19. Pollen grains of a beautiful rose plant were used after a month of their release to pollinate a flower of the same species. Which one of the following events do you think will occur?

A. The pollen will be rejected as it is no longer viable

B. The pollen grains will germinate

C. Pollen grains will germinate once an insect visits the flower

D. None of these

20. If a hypothetical microspore mother cell is tetraploid. What will be the ploidy of the microspore?

A. Diploid

B. Haploid

C. Tetraploid

D. None of the above