



BIOLOGY

BOOKS - ARIHANT PRAKASHAN

SEXUAL REPRODUCTION IN FLOWERING PLANT

Topic 1 Practice Questions Exams Textbook S Other Imp Questions 1 Mark Questions Exam Questions 1. Nocturnal flowers like Nyctanthes attract

insects by their

A. colour

B. nectar

C. scent

D. edible sap

Answer: C

2. In, pollen tube enters through micropyle

into the ovule.

A. porogamy

B. chalazogamy

C. mesogamy

D. herkogamy

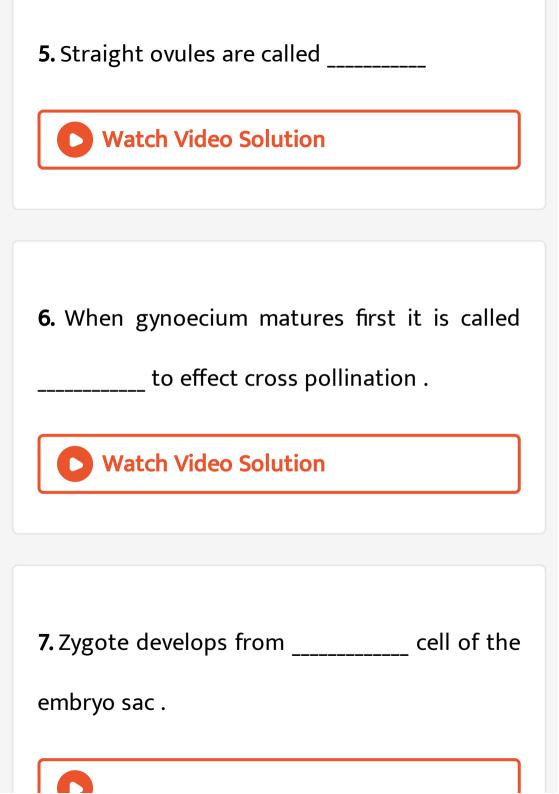
Answer: A

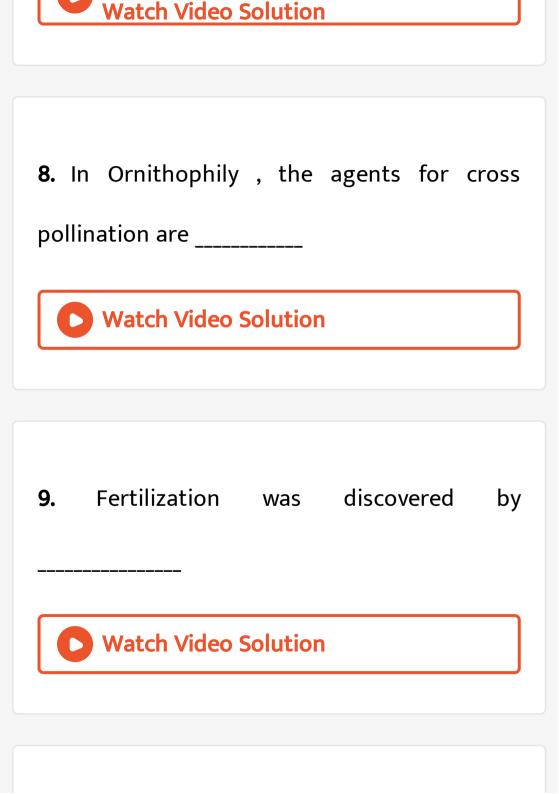
3. Correct the statements:

The outer sterile tissue that provides nourishment to the developing microspores in microsporangia is called endothecium.

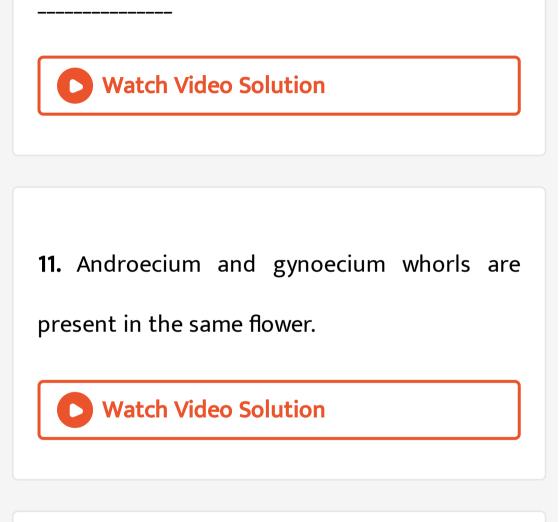
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4. The innermost layer of wall layers is



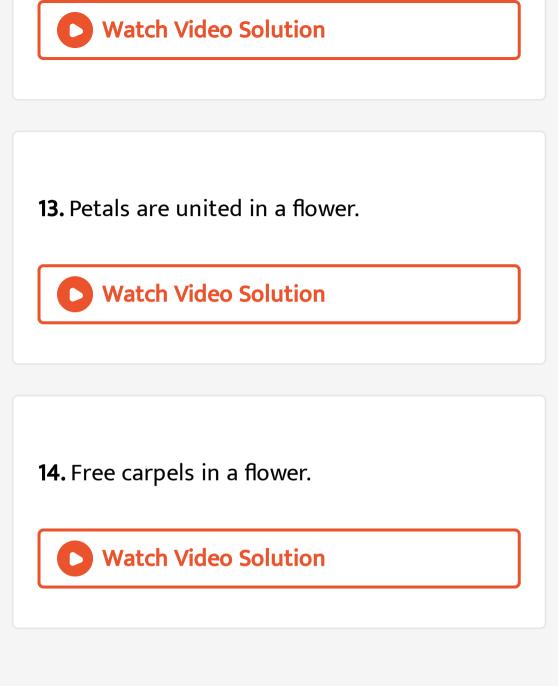






12. Both the essential whorls are absent in a

flower.



15. Transfer of pollen grains from anther to

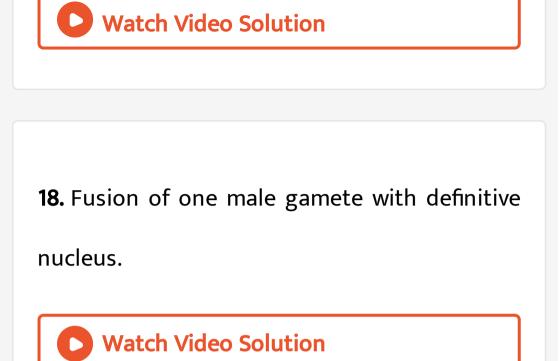
stigma of the same flower.

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16. The process in which the male gamete fertilises with egg.



17. Pollination in aquatic plants.



19. $\underline{Anemopilous}$ flowers are pollinated by

ants.

20. <u>Dichogamy</u> is found in bisexual flowers where stamens and carpels mature at same time.



21. The $\underline{\text{ovule}}$ is attached to the placenta of ovary by means of nucellus.



22. Animals acting as agents of pollination are

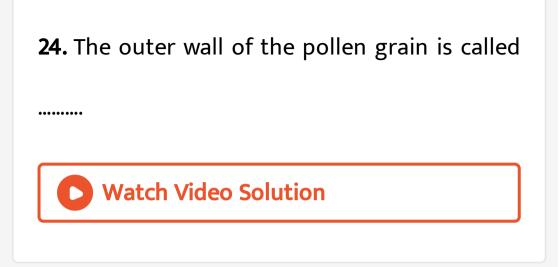
called anemophily.

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23. In maize plant, male inflorescence is borne

at portion of the plant.





25. The male gametes are formed from......



26. The fertile cells from which microspores or

megaspores developed are called....cells.



27. The cells present on two sides of egg in the

egg apparatus are called



Topic 1 Practice Questions Exams Textbook SOther Imp Questions 2 1 2 Mark Questions Exam

- **1.** Write a note on outbreeding devices.
 - Watch Video Solution

2. Explain the role of tapetum in the formation

of pollen grain wall.



3. Where is sporopollenin present in plants? State its significance with reference to its chemical nature.



4. What is pollen kit? Write a short note on

pollen viability.



5. Name all the haploid cells present in an unfertilised mature embryo sac of a flowering plant. Write the total number of cells in it.

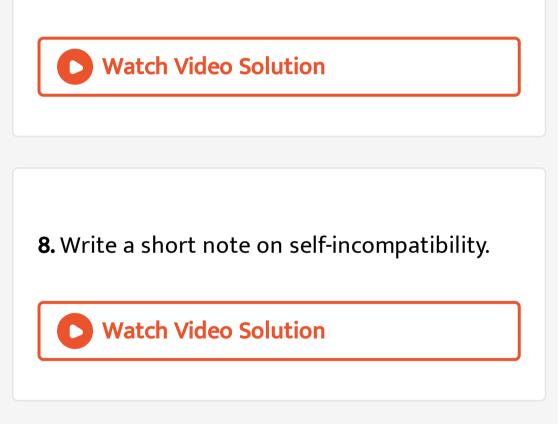


6. What are chasmogamous flowers? Can cross-pollination occur in cleistogamous

flowers? Give reasons for your answer.



7. What is hydrophily? Name any hydrophilous plant and give its important characters which help in pollination.

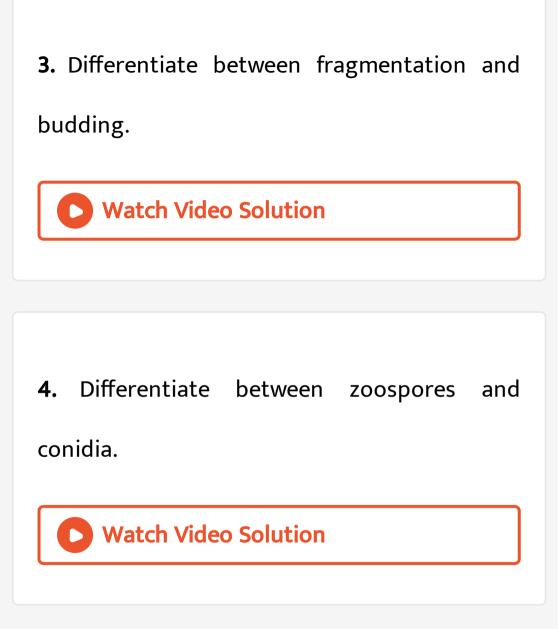


Topic 1 Practice Questions Exams Textbook S Other Imp Questions 3 1 2 Mark Questions Exam Questions **1.** Differentiate between apospory and apogamy.



2. Differentiate between binary fission and

multiple fission.



Topic 1 Practice Questions Exams Textbook S Other Imp Questions 7 Mark Questions Exam **1.** Answer within 200 words : Give a structure of a typical pollen grain and its pre- and post - pollination changes .

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2. Give an account of development of female

gametophyte in angiosperms.

3. With diagrams, describe the development of

male and female gametophyte in angiosperms.

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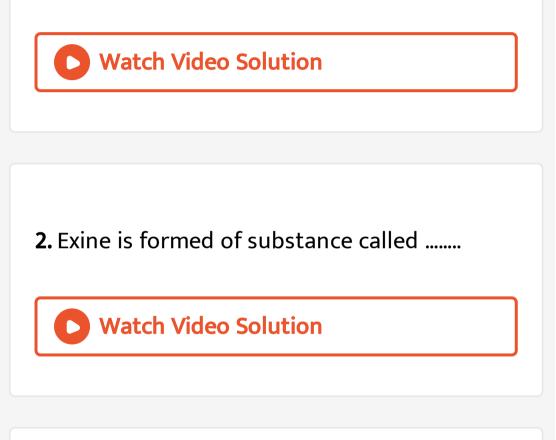
4. Describe how double fertilisation and triple

fusion occur in the angiosperms.



Topic 1 Topic Test 1

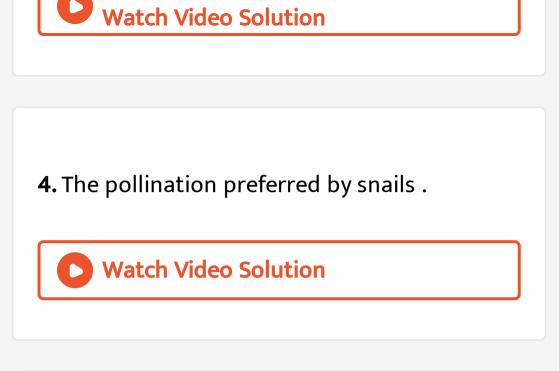
that joins ovary and ovule .



3. The mode of arrangement of ovule along

the placenta in the cavity of the ovary





5. The narrow pore at one end of the ovule is called

A. micropyie

B. funfculus

C. chalaza

D. hilum

Answer: A

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6. The presence of filiform apparatus is the characteristic feature of

A. egg

B. zygote

C. suspensor

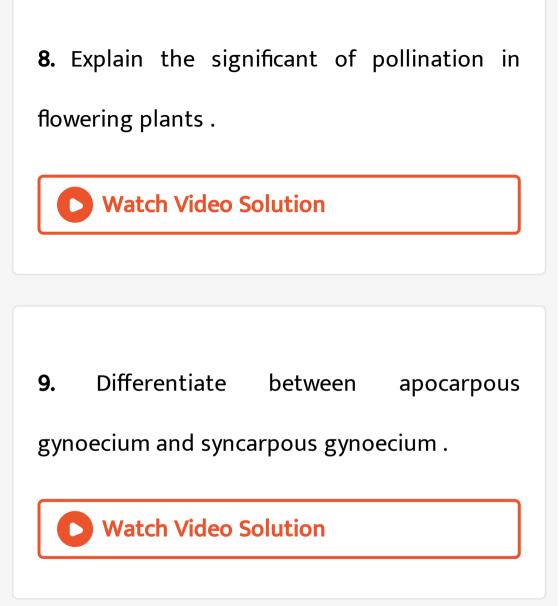
D. synergid

Answer: D

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7. Explain the role of tapetum in the formation

of pollen grain wall.



10. With the help of a neat well-labelled diagram explain the 7-celled , 8 nucleate mature of the female gametophyte .



Topic 2 Practice Question Exams Textbook SOther Imp Questions 1 Mark QuestionsImportant Questions

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1. Due to triple fusion , _____

formed .



2. The marks the point of attachment to

the stalk.

(micropyle, hilum, coleoptile)



3. Fruit derived from ovary along with other accessory floral parts like thalamus is called



(true fruit, false fruit, parthenocarpic fruit)



4. Production of seed without meiosis and

syngamy is termed as

(apomixis, parthenocarpy, parthenogenesis)



5. A type of endosperm, which is an intermediate between cellular and nuclear type.



6. An embryo sac directly produced from a nucellar cell.

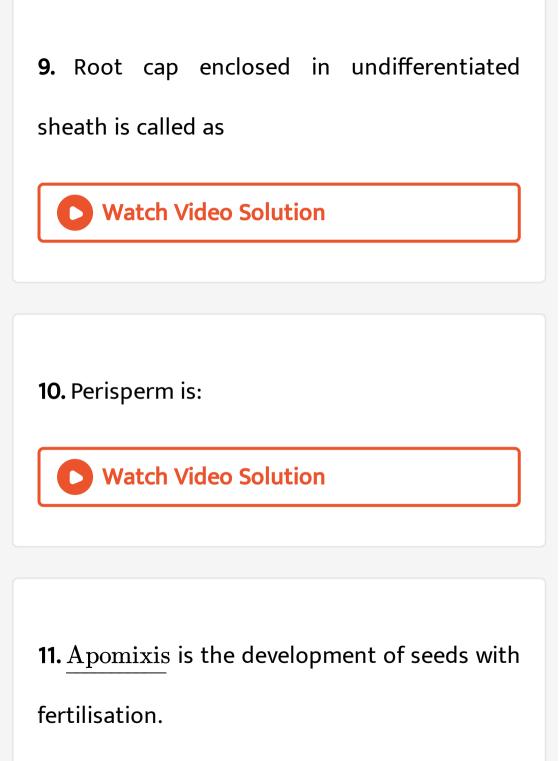
7. The phenomenon of the formation of gametophyte directly from sporophyte without meiosis is



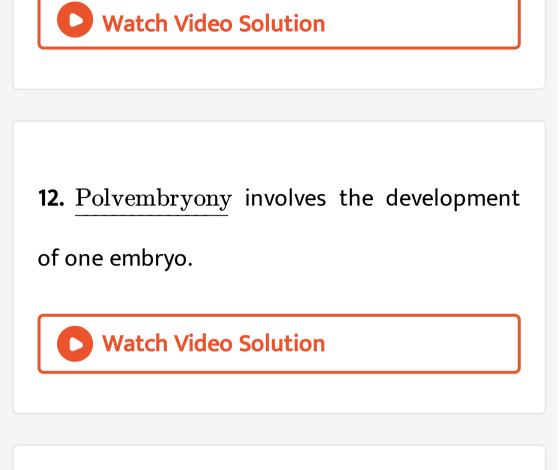
8. The portion of the embryonal axis above the

level of attachment of scutellum.





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13. The endosperm in which first division is cellular and subsequential cellular is called endosperm



14. In a zygote, the terminal cell situated towards the chalazal pole is called

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15. The position of plumule in monocot

embryo is



16. The part of pistil which develops into fruits

is



17. Parthenogenesis means development of

fruits without



Topic 2 Practice Question Exams Textbook SOther Imp Questions 2 1 2 Marks Questions

1. In angiosperms, zygote is diploid while primary endosperm cell is triploid. Explain.



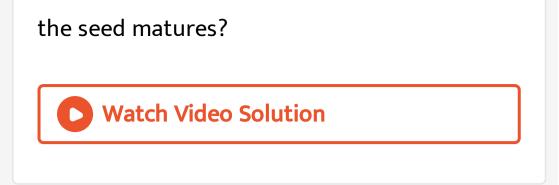
2. Why do you think that the zygote is

dormant for some time in a fertilised ovule?

3. Double fertilisation is reported in plants of both, castor and groundnut. However, the mature seeds of groundnut are nonalbuminous and castor are albuminous. Explain the post-fertilisation events that are responsible for it.

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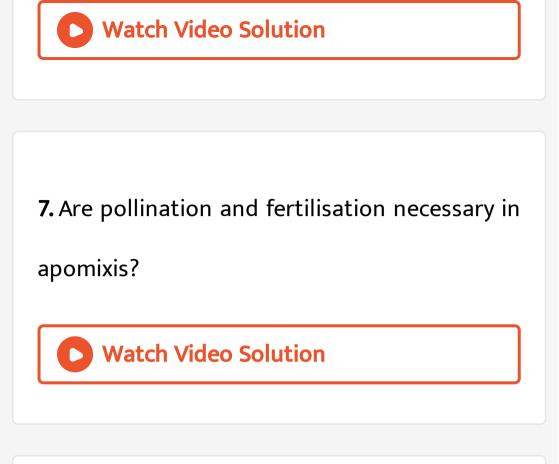
4. Why do the integuments of an ovule harden and the water content gets highly reduced as



5. Strawberry is sweet and eaten raw just like any other fruit. Why do botanists call it a false fruit?

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6. Give reasons why hybrid seeds are to be produced year after year.



8. What is apomixis? Comment on its

significance. How can it be commercially used?

9. Write a note on polyembryony



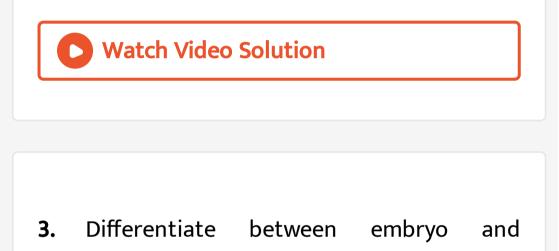
Topic 2 Practice Question Exams Textbook S Other Imp Questions 3 1 2 Questions Exams Questions

1. Differentiate between parthenocarpy and

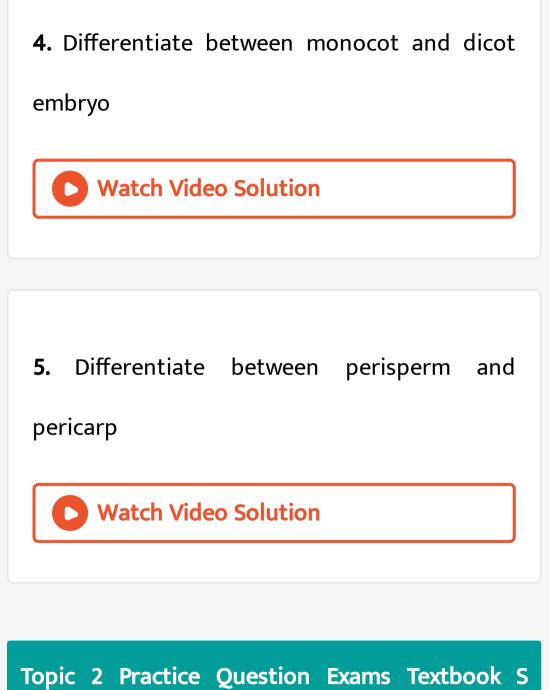
parthenogenesis

2. Differentiate between nuclear endosperm

and cellular endosperm



endosperm



Other Imp Questions 7 Marks Questions

1. Describe the process of development of

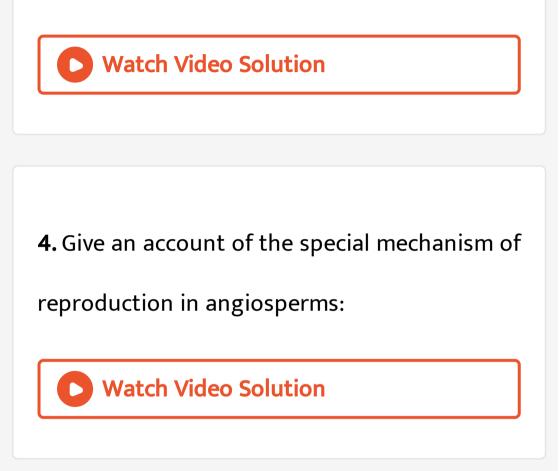
endosperm in angiosperms.

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2. Describe the mechanism of development of

dicot embryo along with labelled diagram.

3. Write a note on structure of seed.



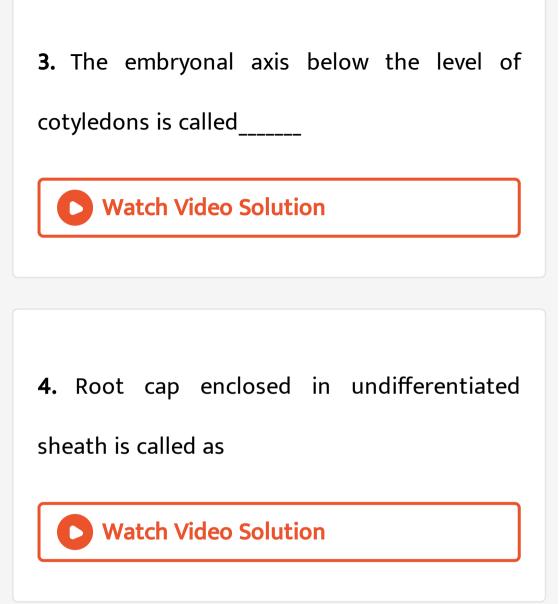
Topic 2 Topic Test 2 Fill In The Blanks

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



2. In a zygote, the terminal cell situated towards the chalazal pole is called





5. Basal cell divides to produce

A. haustorium

B. hypobasal cells

C. suspensor cells

D. epibasal cells

Answer: C

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6. Adventive embryony in citrus occurs due to

A. nucellus

B. integuments

C. embryo

D. fertilised egg

Answer: A

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7. Comment on the genetic nature of embryos produced through apomixis. Can they be called clones?

8. Why do you think is mango called a true

fruit and strawberry is called a false fruit?



9. Differentiate between endosperm and

perisperm

10. What do you mean by pollination? Explain the various types of pollination observed in plants.



Chapter Test

1. The thick swollen embryonal leaf filled with

reserve food is called

2. Stalk with which ovule remains attached to

the placenta is called

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3. A mass of parenchyma cells, surrounded by

integuments and encloses embryo sac is called

4. Total number of nuclei involved in double

fertilization in angiosperms are :



5. The individual members of corolla are called

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6. Non endospermic seeds are found in

A. groundnut

- B. pea
- C. beans
- D. All of these

Answer: D



7. Primary Endosperm Cell (PEC) is formed

A. after triple fusion

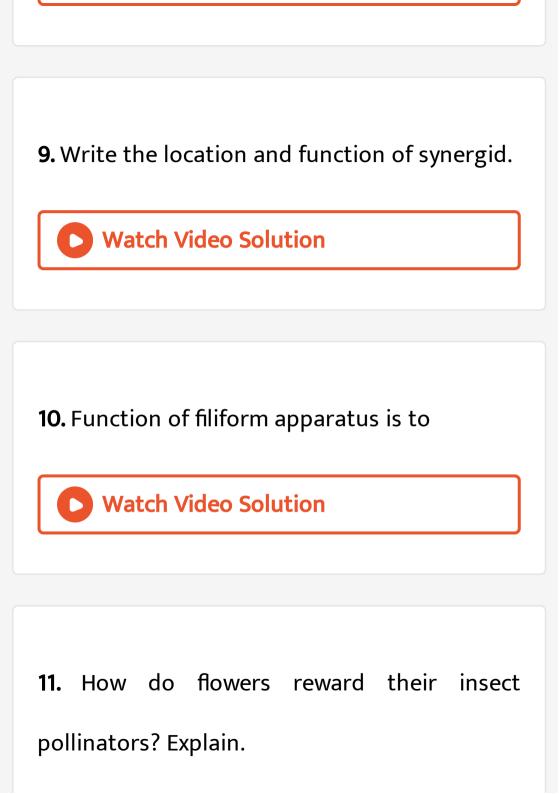
- B. before triple fusion
- C. at the time of syngamy
- D. always persisted

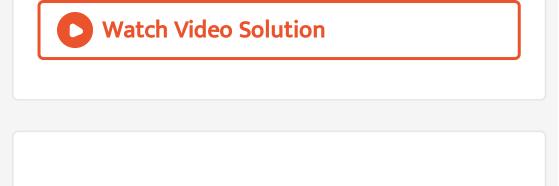
Answer: A

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- 8. How many cellular nuclei do the pollen tube
- of angiosperm have? What is the ploidy of

each of the nuclei?





12. Micropyle remains as a small opening found on the seed coat. Do you agree? Also, state its function.



13. Why do you think is mango called a true

fruit and strawberry is called a false fruit?



14. Differentiate between hydrophily and entomophily.

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15. Differentiate between polyembryony and

parthenogenesis.

16. Differentiate between microsporogenesis and megasporogenesis. Which type of cell division occurs during these events? Name the structures formed at the end of these two events



17. With diagrams, describe the development of male and female gametophyte in

angiosperms.





18. Explain the mechanism of double

fertilization.



19. Give an account of contrivances of self and

cross pollinations.



20. Describe the process of development of monocotyledonous embryo with labelled diagram.