

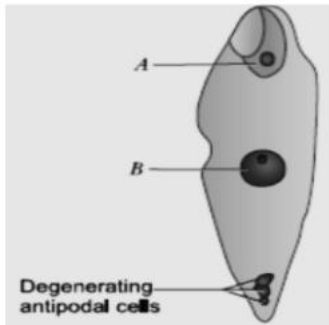


## Ch 1 Sexual Reproduction in flowering plants

1.	What is the function of filiform apparatus in an angiospermic embryo sac? (a) Brings about opening of the pollen tube (b) Guides the pollen tube into a synergid (c) Prevents entry of more than one pollen tube into a synergid (d) None of these
2.	Polygonum type of embryo sac is (a) 8 – nucleate, 7 – celled (b) 8 – nucleate, 8 – celled (c) 7 – nucleate, 7 – celled (d) 4 – nucleate, 3 – celled
3.	Both chasmogamous and cleistogamous flowers are present in (a) Helianthus (b) Commelina (c) Rosa (d) Gossypium
4.	Even in absence of pollinating agents seed-setting is assured in (a) Commelina (b) Zostera (c) Salvia (d) Fig
5.	In albuminous seeds, food is stored in _____ and in non albuminous seeds, it is stored in _____. (a) endosperm, cotyledons (b) cotyledons, endosperm (c) nucellus, cotyledons (d) endosperm, radicle
6.	<b>Assertion:</b> In coconut, the water represents the cellular endosperm and the white kernel represents free nuclear endosperm <b>Reason:</b> In the most common type of endosperm development PEN undergoes successive nuclear divisions to give rise to free nuclei.
7.	<b>Assertion:</b> Pollen bank can be formed for crop breeding programmes. <b>Reason:</b> Pollen grain of many species can be stored for year in liquid nitrogen ( $-196^{\circ}\text{C}$ )



## INDIAN SCHOOL NIZWA - WORKSHEET

8.	<b>Assertion:</b> Megaspore mother cell undergoes meiosis to produce four megaspore, <b>Reason:</b> Megaspore mother cell and megaspore both are haploid.
9.	<b>Assertion:</b> An angiospermous flower represents the modified condensed shoot which performs the function of sexual reproduction. <b>Reason:</b> The fertile leaves of the shoot become modified into microsporophylls and megasporophylls which bear ovules and anthers respectively.
10.	The flower of Brinjal is referred to as chasmogamous while that of Bean is cleistogamous. How are they different from each other?
11.	Differentiate between geitonogamy and xenogamy in plants. Which one between the two will lead to inbreeding depression and why?
12.	a) How does a farmer use the dormancy of seed to his advantage? b) Fertilisation is not an obligatory event for fruit formation in certain plants. Explain the statement with the help of an example. c) How does coconut kernel differ from coconut water?
13.	Explain the adaptations that ensure pollination in the following plants. Mention the pollinating agents in each of the plant. (a) Grass (b) Vallisneria
14.	The diagram below shows embryo sac after fertilization. Study it and answer the following questions:  (a) Identify the structures which develop from parts labelled as A and B in the above diagram. (b) How is the structure which develops from part B different from perisperm? (c) Normally one embryo develops in one seed but when an orange seed is squeezed many embryos of different shapes and sizes are seen. Mention how it has happened.
15.	a) Can a plant flowering in Mumbai be pollinated by pollen grains of the same species growing in

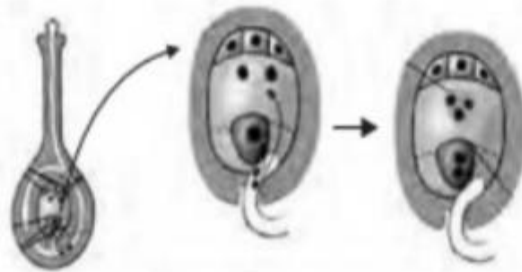


## INDIAN SCHOOL NIZWA - WORKSHEET

New Delhi? Provide explanations to your answer.

b) What is the fate of haploid megaspores formed by the megaspore mother cell in an angiosperm plant?

c) Shipra was studying for her NEET exam. She saw the following figure:



But she was unable to understand the events that happened during the double fertilization. Explain the process.