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SET A



INDIAN SCHOOL MUSCAT

FIRST PERIODIC TEST

Biology

CLASS: XII

Sub.Code: 044

Time Allotted: 50mts.

24 .04.2022

Max .Marks: 20

MARKING SCHEME		
	SECTION A	
1.	How do pollengrains of Vallisnaria protect themselves? Pollen grains are produced under water, so they have mucilaginous coating to prevent from wetting.	1
2.	Name the part of the flower which the tassels or the corn cob represent. Style and stigma	$\frac{1}{2} + \frac{1}{2}$
	SECTION B	
3.	Identify the organic materials of which the exine and intine of an angiosperm pollen grains are made up of. Explain the role of exine. Exine - Sporopollenin Intine - cellulose and pectin Protects the pollen grain from the action of acids, alkalis or enzymes.	2
4.	Draw the diagram of a mature pollengrain and label any 4 parts.	2
5.	Differentiate between albuminous and non albuminous seeds, giving one example each.	2

	<p>Albuminous – endosperm is not completely utilised during the embryo development. eg Castor</p> <p>Non-albuminous – endosperm is completely utilised during the embryo development.</p> <p>Eg . Pea</p>	
	SECTION C	
6.	<p>Describe the development of endosperm after double fertilization in an angiosperm. Why does endosperm development precedes embryo development?</p> <p>PEN undergoes successive nuclear divisions to give rise to free nuclei. $\frac{1}{2}$</p> <p>This stage is called free-nuclear endosperm. $\frac{1}{2}$</p> <p>Subsequently cell wall formation occurs and endosperm becomes cellular. 1</p> <p>The PEC divides repeatedly and forms a triploid endosperm tissue. The cells of the tissue are filled with reserve food materials and are used for the nutrition of the developing embryo. 1</p>	3
7.	<p>Describe three out breeding devices employed by angiosperms.</p> <ol style="list-style-type: none"> 1. Unisexual flower 2. No synchrony between anther release and stigma receptivity. 3. Anther and stigma at different levels. 4. Self incompatibility (any three) 	3
8.	<p>Differentiate between the three types of pollination in angiosperms.</p> <p>Autogamy – within the flower</p> <p>Geitonogamy – Between two flowers of the same plant</p> <p>Xenogamy – Between two flowers of two different plants.</p>	3
9.	<p>Explain double fertilisation in angiosperms.</p> <p>There are two male gametes.</p> <p>One gamete fuses with the egg cell</p> <p>Syngamy results in zygote formation</p> <p>Second gamete fuses with the polar nuclei</p>	3

	<p>This is called triple fusion</p> <p>Results in the formation of PEN (6 x ½)</p>	
	End of the Question Paper	

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NAME OF THE EXAMINATION	FIRST PERIODIC TEST	CLASS: X/XII
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