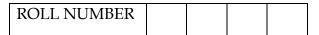
C





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? | 1 | |
| | Pollen grains are produced uder water, so they have muscilagenous coating to prevent from wetting. | | |
| 2. | Define Apomixis. | 1/2 + 1/2 | |
| | Development of seed without fertilization. | | |
| | SECTION B | | |
| 3. | Define Pollen Pistil interaction. | 2 | |
| | All the events from pollen deposition on the stigma until pollen tubes enter the ovule are together referred to as pollen pistil interaction. | | |
| 4. | Differentiate between albuminous and non albuminous seeds, giving one example each. | 2 | |
| | Albuminous – endosperm is not completely utilised during the embyro development. eg Castor | | |
| | Non-albuminous – endosperm is completely utilised during the embryo development. | | |

| Eg . Pea | |
|--|--|
| Draw the diagram of a typical anatropous ovule and label any 4 parts. | 2 |
| SECTION C | |
| Explain double fertilisation in angiosperms. | 3 |
| There are two male gametes. | |
| One gamete fuses with the egg cell | |
| Syngamy results in zygote formation | |
| Second gamete fuses with the polar nuclei | |
| This is called triple fusion | |
| Results in the formation of PEN (6 x $\frac{1}{2}$) | |
| Differentiate between the three types of pollination in angiosperms. | 3 |
| Autogamy – within the flower | |
| Geitonogamy – Between two flowers of the same plant | |
| Xenogamy – Between two flowers of two different plants. | |
| | |
| Describe three out breeding devices employed by angiosperms. | 3 |
| 1. Unisexual flower | |
| No synchrony between anther release and stigma receptivity. Anther and stigma at different levels | |
| 4. Self incompatibility (any three) | |
| Describe the development of pollen grain inside the microsporangia. Name the | 3 |
| | |
| Microsporangia contains sporogenous tissue. | |
| The cells are called PMC | |
| PMC undergoes meiosis to form pollen tetrad | |
| Pollen tetrad undergoes dehydration to form pollen grains. | |
| Tapetum | |
| | Draw the diagram of a typical anatropous ovule and label any 4 parts. SECTION C Explain double fertilisation in angiosperms. There are two male gametes. One gamete fuses with the egg cell Syngamy results in zygote formation Second gamete fuses with the polar nuclei This is called triple fusion Results in the formation of PEN (6 x ½) Differentiate between the three types of pollination in angiosperms. Autogamy – within the flower Geitonogamy – Between two flowers of the same plant Xenogamy – Between two flowers of two different plants. Describe three out breeding devices employed by angiosperms. 1. Unisexual flower 2. No synchrony between anther release and stigma receptivity. 3. Anther and stigma at different levels. 4. Self incompatibility (any three) Describe the development of pollen grain inside the microsporangia. Name the inner most wall layer of microsporangium and write its function. Microsporangia contains sporogenous tissue. The cells are called PMC PMC undergoes meiosis to form pollen tetrad Pollen tetrad undergoes dehydration to form pollen grains. |

| Provides nutrition ½ x 6 | |
|---------------------------|--|
| End of the Question Paper | |

INDIAN SCHOOL MUSCAT

| NAME OF THE EXAMINATION | FIRST PERIODIC TEST | CLASS: X/XII |
|-------------------------|---------------------|--------------|
| DATE OF EXAMINATION | | SUBJECT: |

| TYPE | | MARKING SCHEME | |
|------|------|----------------|------|
| | | 1 | |
| SET | Q.NO | VALUE POINTS | MARK |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |