DELHI PUBLIC SCHOOL NEWTOWN
SESSION 2020-2021
MONDAY TEST

CLASS: IX **FULL MARKS: 40**
SUBJECT:BIOLOGY **DATE: 5.11.20**

General Instructions:

- **The paper consists of three printed pages.**
- **Answers should be to the point.**
- **Copy the question number carefully before answering the questions.**
- **Marks will be deducted for spelling errors.**

1. Name the following: [1×5=5]

i. **A monocotyledonous albuminous seed.**
ii. **The energy currency of the cell.**
iii. **The outermost layer of the endosperm which is rich in protein.**
iv. **The process by which male and the female gametes fuse.**
v. **The process by which the pollen grains of one flower fall on the stigma of another flower but of the same plant.**

2. Fill in the blanks: [1×5=5]

In double fertilization, one male gamete nucleus fuses with the egg cell to form a ____i_____. The second male nucleus fuses with two polar nuclei to form the _____ii____. The function of _____iii_____ is to direct the growth of pollen tube towards the ovule. The embryo sac consist of 3 cells at the opposite end of the micropylar end, and are known as _____iv_____. After fertilization the ovules become the _____v_____.

3. Differentiate between the following according to the criterion given in the bracket: [1×5=5]

i. **Herkogamy and Heterostyly (Definition)**
ii. **Radicle and Plumule (Definition)**
iii. **Respiration and Burning (Involvement of enzymes)**
iv. **Aerobic Respiration and Anaerobic Respiration in plants (Products formed)**
v. **Respiration and Photosynthesis (Place of occurrence)**

4. i. Draw a neat labelled diagram of L.S. of a dicot seed. [3]

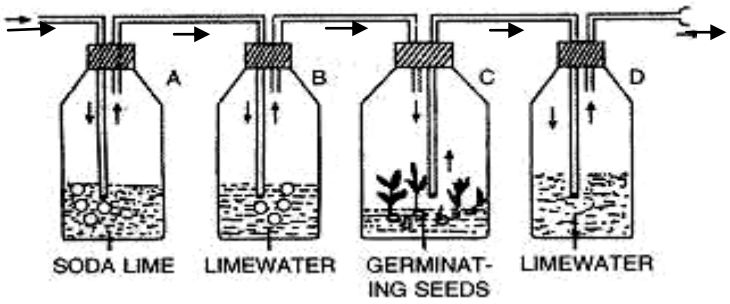
ii. Mention one function of [2]

a. **Seed Coat**
b. **Cotyledon**

5. Give reasons for the following: [1×5=5]

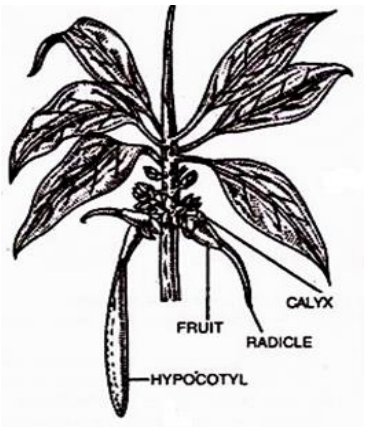
i. **Seeds sown very deep in the soil fail to germinate.**
ii. **Respiration is known as a catabolic process.**
iii. **Insect pollinated flowers have bright coloured petals.**
iv. **Wind pollinated flowers have hanging and feathery stigma.**
v. **Maize is known as a grain.**

6. Answer the following questions: [1+1+1+1+1]



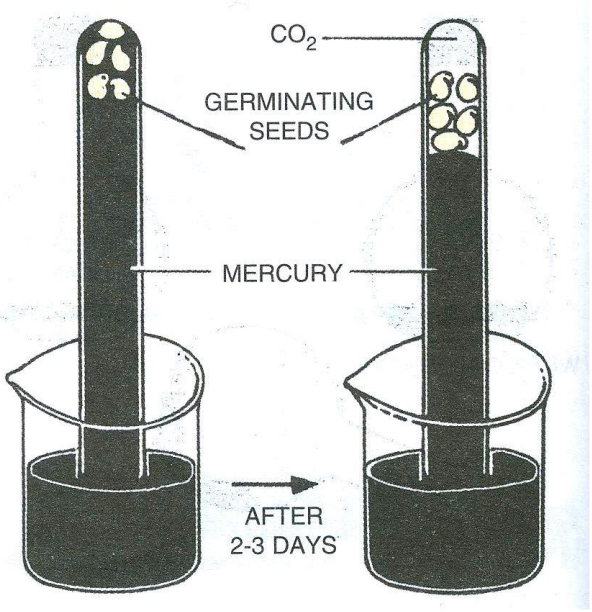
i. **Why is soda lime placed in Flask 'A'?**
ii. **Name the gas released from Jar "C".**
iii. **Why is lime water used in the Flask D?**
iv. **What do you understand by a control set up?**
v. **Why do you think this experiment should be conducted in a place where there is no light?**

7. Observe the diagram given below and answer the following questions: [2+1+1+1]



i. **Identify and define the type of germination shown in the above diagram.**
ii. **Mention the name of two plants in which we can observe such type of germination.**
iii. **Name the protective sheath of plumule and radicle.**
iv. **Why is very low temperature unsuitable for germination?**

8. Answer the following questions: **[1+1+2+1]**



i. **Mention the aim of the experiment.**
ii. **Why are the seed coats peeled off before introducing them into the test tube?**
iii. **In a control set up what type of seeds do we use? Explain with reason why do we use antiseptic on those seeds which are used in the control set up?**
iv. **Explain the physiological process shown in the experiment.**