



**DELHI PUBLIC SCHOOL NEWTOWN**  
**SESSION 2022-23**  
**MONDAY TEST**

**CLASS: IX**  
**SUBJECT: BIOLOGY**

**FULL MARKS: 40**  
**DATE: 31.10.22**

**General Instructions:**

- This paper consists of two 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. Choose the correct answer:** [5]

- a. The fate of ovary after fertilization
  - i. Testa, ii. Fruit, iii. Pericarp, iv. Seed
- b. Monocot Albuminous Seed
  - i. Poppy, ii. Cereal, iii. Custard Apple, iv. *Vallisneria*.
- c. Glycolysis is a process in which
  - i. Glycogen is converted to glucose,
  - ii. Glucose is converted into pyruvate,
  - iii. Glucose is converted to carbon dioxide and water
  - iv. Glucose is converted to Ethanol
- d. Exine is the outer wall of
  - i. Ovule, ii. Pollen grain, iii. Stigma, iv. Ovary
- e. The process by which anthers are removed from young flowers are
  - i. Bagging, ii. Hybridization, iii. Pollination, iv. Emasculation

**2. Name the following:** [5]

- a. When the maturation time of the reproductive parts of a flower are same.
- b. A chemical which absorbs oxygen.
- c. A distinct whitish oval scar on the concave side of the seed.
- d. Full form of ATP.
- e. When the stigma of a flower matures early than the anther.

**3. Choose the odd one out and write the correct category to which the others belong:** [5]

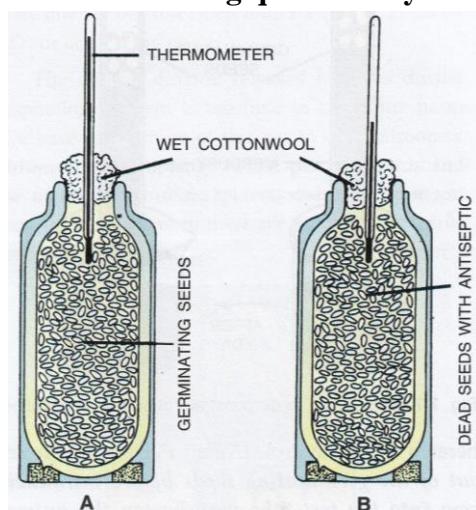
Example- Large Intestine, Stomach, Mouth, Brain.

Odd one- Brain, Category- Organs of Digestive System

- i. Zygote, Autogamy, Allogamy, Geitonogamy.
- ii. *Rhizophora*, Maize, Pea, Gram.

- iii. Glucose, Carbon dioxide, Water vapour, 38ATP.
- iv. Lady Finger, Sweet Pea, *Salvia*, Custard Apple.
- v. Ovary, Cotyledon, Hypocotyl, Epicotyl.

4. Differentiate between the following according to the criterion given in brackets: [5]
- i. Anaerobic respiration in plants and Aerobic respiration (Energy liberated)
  - ii. Bean and Maize (Number of cotyledons)
  - iii. Testa and Tegmen (Definition)
  - iv. Autogamy and Allogamy (Definition)
  - v. Self-sterility and Unisexuality (Definition)
5. i. Define hypogea germination. [1]
- ii. “Seeds sown deep into the soil fail to germinate”. Mention two reasons to explain this statement. [2]
- iii. Mention two disadvantages of cross pollination. [2]
- iv. Briefly explain double fertilization in two distinct points. [2]
- v. Draw a neat labelled diagram of L.S. of a Dicot Seed. [3]
6. i. Define Aerobic Respiration. [1]
- ii. Give reasons for the following: [2]
- a. Antiseptic is used on the dead seeds during the experiments of respiration.
  - b. KOH is used in the experiments of respiration.
- iii. Explain the importance of water during germination. (Two points) [2]
- iv. Mention the protective sheath which encloses the plumule. Why is maize known as a grain and not a seed? [2]
- v. Answer the following questions by observing the diagram given below: [3]



- a. Mention the aim of the above experiment.
- b. Mention with reasons what will you observe in the thermometers of Flask A and Flask B after sometime?