

NOTE:

1. Attempt all questions from Section I & Section II.
2. Each section is of 40 marks.

Section-I

Q1 Choose the correct answers to the questions from the given options. 10m

(Do not copy the questions, write the correct answers only.)

- i. A _____ eclipse is the total or partial cutting off the light falling on the moon from the sun when the earth comes in between the sun and the moon.
 - a. Non-luminous
 - b. Luminous
 - c. Lunar
 - d. Solar
- ii. Air is a mixture of various _____.
 - a. gases
 - b. liquids
 - c. solids
 - d. all of the above
- iii. The process of transfer of pollen grains from anther to stigma is called _____.
 - a. Fertilization
 - b. Pollination
 - c. Syngamy
 - d. None of the above
- iv. The place where an organism lives is known as its _____.
 - a. home
 - b. territory
 - c. habitat
 - d. ecosystem
- v. _____ is also known as the brain of the cell.
 - a. Cytoplasm
 - b. Nucleus
 - c. Ribosome
 - d. None of the above
- vi. Which of the following part of a cell is '*selectively permeable*'?
 - a. Cell membrane
 - b. Cytoplasm
 - c. Nucleus
 - d. Cell wall
- vii. In some flower *Sepals* become colored and are called _____.
 - a. sepals
 - b. petaloid
 - c. anthers
 - d. stigma

- viii. The hiding of one heavenly object behind another is called an _____
- Rotation
 - Revolution
 - Eclipse
 - Constellation
- ix. Which of the following animal is known as the ship of the desert
- Camel
 - Donkey
 - Horse
 - Cow
- x. A _____ substance is one in which all the particles (atom or molecules) are of the same kind
- impure
 - pure
 - mixed
 - none of the above

Q2 State whether the underlined word in the following sentence makes the statement true or false. If the statement is false, correct only the underlined part and **REWRITE** the statement. 5m

- Light always travel in a straight line.
- Filtration is the process of converting a liquid into vapour either by exposing it to air or by heating.
- Chromosomes contain basic hereditary units called genes.
- The collective term for all carpels is androecium.
- The nerve cells are the shortest cells in the human body.

Q3 Match the following 5m

Mixtures	Separation Method
1. Stones in rice	a) Sieving
2. Iron filling with Sulphur	b) Winnowing
3. Ammonium chloride from salt	c) Magnetic separation
4. Sand used in the construction site	d) Hand picking
5. Separating grains from chaff	e) Sublimation

Q4 Name the following 5m

- The 4th and the central whorl of a flower is.
- The region of absence of light is called.
- The number of atoms in a molecule is called its.
- The only metal that is liquid at room temperature is.
- The physical and biological conditions in which an organism lives and with which it interacts is called its.

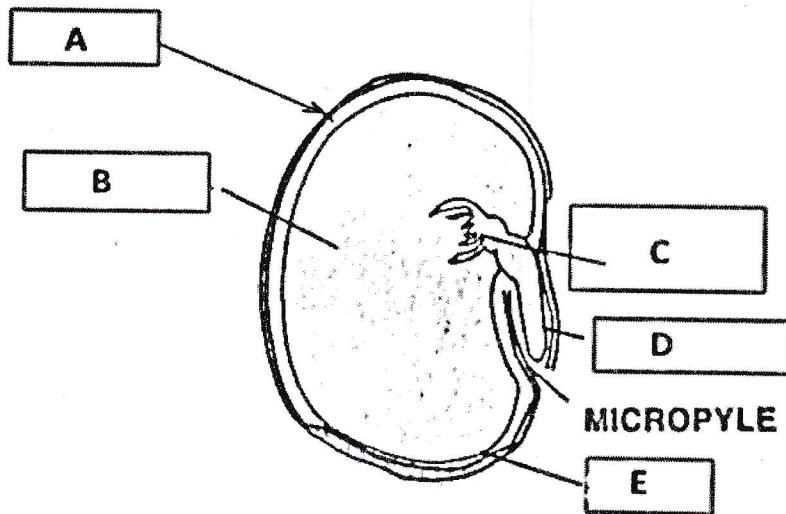
Q5 Distinguish between (Draw a table and one point of difference in each 5m

- Complete and incomplete flower. (with respect to the definition)
- Cross pollination and self-pollination. (with respect to the definition)

- iii. Umbra and penumbra. (with respect to light reaching the region)
 - iv. Metals and Non-metals. (with respect to conduction of electricity)
 - v. Elements and Compounds. (with respect to the definition)
- Q6** Classify the following as transparent, translucent and opaque object, **3m**
(Draw a table and answer the question)
 Glass, wood, paper, water, milk, iron
- Q7** Classify the following as luminous and non luminous object, **4m**
(Draw a table and answer the question)
 Sun, moon, paper, candle, glow worm, table, firefly, pen.
- Q8.** Which elements are represented by the following symbols **3m**
- i. Pb
 - ii. H
 - iii. He

SECTION - II

- Q9** Answer the following questions
- i. Give any 3 functions of flowers **3m**
 - ii. State any 2 function of a fruit **2m**
 - iii. Mention any 3 functions of a cell wall **3m**
 - iv. Define the following **2m**
 - a) Microhabitats
 - b) Mesophytes
- Q10** With respect to the following figure, answer the following questions. (DO NOT DRAW THE FIGURE)



The structure of seed showing embryo plant.

- i. Name the part A and write its function **2m**
- ii. Name the part B and write its function **2m**
- iii. Name the part C. After germination what does C grows into **2m**
- iv. Name the part D. After germination what does D grow into **2m**

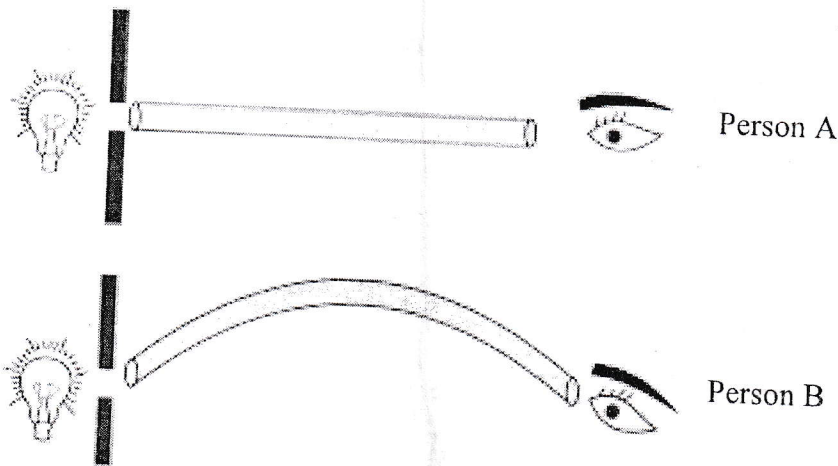
- v. Name the part E 1m
- vi. State any 1 condition suitable for germination 1m

Q11 Answer the following question

- i. What is the atomicity of the following? 3m
 - a) Oxygen
 - b) Potassium
 - c) Ozone
- ii. What are noble gases? Give one example of a noble gas. 2m
- iii. State any 3 characteristics of a mixture 3m
- iv. Define 2m
 - a) Filtration
 - b) Sublimation

Q12 Answer the following question

- i. What is a pin hole camera and state any 2 characteristics of the image formed by a pin hole camera 3m
- ii. Give the two reasons for the formation of a shadow. 2m
- iii. In the given figure, person A views the bulb through a straight hollow rod while person B views it through a curved hollow rod. Which person will see the light clearly? Give reason for your answer. 2m



- iv. What is a solar eclipse? Which region on the Earth experiences a total solar eclipse? 2m
- v. When does a full lunar eclipse occur? 1m