

## 40 Questions in Botany

**Q1/ Fill the following blanks with appropriate phrases:**

1. A person engaged in the study of botany is called - - - - - .
2. - - - - - is the chief component of plant cell wall.
3. Plants store their carbohydrates as - - - - - .
4. plant cell includes the - - - - - with the - - - - - .
5. Biology deals with the study of plants called - - - - - and study of animals called - - - - - .
6. The cytoplasm contains all the of a - - - - -, and - - - - - components.
7. Gymnosperms mean - - - - - plants, and Angiosperms mean - - - - - plants.
8. The main consist of plasma membrane is - - - - - bilayers.

**Q2 /Enumerate Five Special characteristics of plants.**

**Q3 /Enumerate Ergastic substances.**

**Q4 /Enumerate Two chemical structures of crystals.**

**Q5 / Write the difference between the Chloroplast and Leucoplast.**

**Q6 / Write the difference between the Monocot plants and Dicot plants**

**Q7/ Write the difference between the Morphology and Anatomy**

**Q8 / Write the difference between the Cell wall and Plasma membrane**

**Q9 / Write the difference between the Tonoplast and Plasma membrane**

**Q10/ Check the correct choices:**

1. .... they consist of RNA and protein  
a- Ribosome b- Peroxisome c- Cytoplasm
2. The Vacuole function is ..... regulation  
a- Protein b- Starch c- Water
3. The mitochondria are concerned with process of ..... conservation.  
a- Photosensitize b- Energy c- Transpiration
4. The complex of DNA and Protein called .....  
a- Chromatin b- Ribosome c- peroxisome
5. Pit has complementary pit exactly opposite it called .....  
a- Bordered pit b- blind pit c- pit pair
6. after plant photosensitize process plant release.....  
a- Co<sub>2</sub> b- O<sub>2</sub> c- N<sub>2</sub>

**Q11/ Fill the following gaps:**

- 1- Botany is -----  
-----.
- 2- The plant cell typically consists of -----and -----  
-----.
- 3- Aleuronic grains may be ----- or ----- and -----  
-----.
- 4- Ribosomes are small particles that occur free in -----, on the  
outside of  
the ----- and in the -----.
- 5- Vacuole occupy more than ----- of the volume of most mature  
plant cells.

**Q12/ Enumerate only Non-living components.**

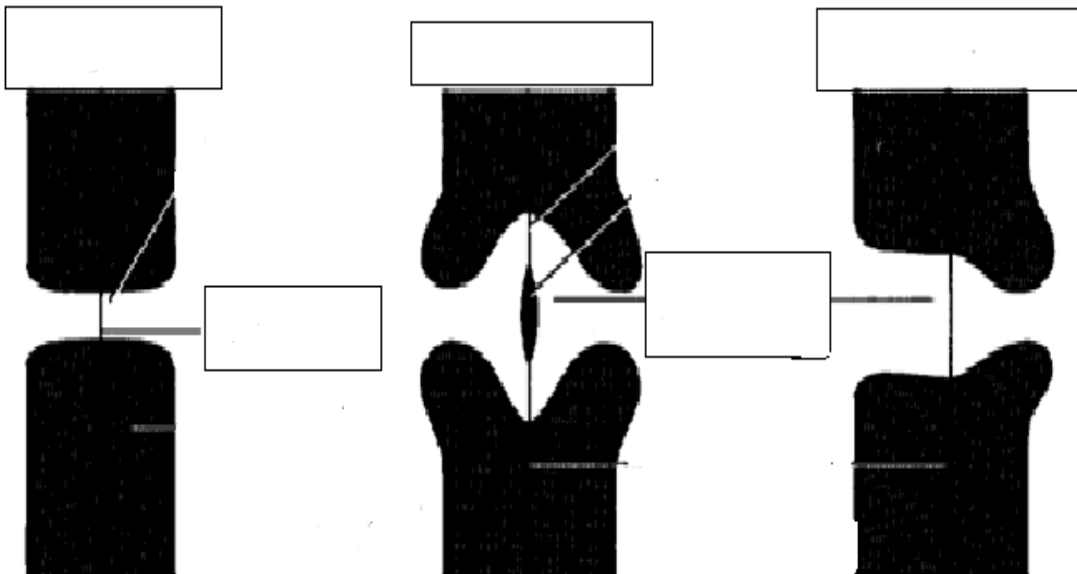
**Q13/ Enumerate only Types of plastids.**

**Q14/ Write only one main functions of the following:**

- 1- Mitochondria.
- 2- Peroxisomes.
- 3- Golgi apparatus.
- 4- Cytoplasm.

**Q15/ Write the differences between the Gymnosperms and Angiosperm.**

**Q16/ Rewrite the correct phrases into the blank boxes of these diagrams**



**Q17/ What is the relationships between air purification and plant?**

**Q18/Fill the blanks with missing words; (choose 10 phrases from the box and write the appropriate one in the blank):**

Monocots, Phoenix, rhizomes, cotyledons, Globform, Cabbage, Quercus, bulbs  
Euphorbia, heartwood, Conical (Coniform), head lettuce, Gamopetalous, tubers,  
 Fabaceae, sapwood, Monadelphous, xylem, Shrubs, Fusiform, Dicots, Lateral root,

1. Potato- - - - - , *Iris* - - - - - , and tulip - - - - -  
 - - - - are underground stems that store food for the plant.
2. - - - - - and - - - - - are unusually large terminal buds.
3. Seed leaves-( - - - - - ) on embryonic plants. They store food for the developing seedling.
4. - - - - - have Parallel veined-mostly grasses while - - - - -  
 - - - - - have pinnate veins-veins extend laterally from the mid-rib to the edge
5. The xylem forms the inner ring and is often called the- - - - -  
 and - - - - - .

**Q19/ Read the following statements carefully and identify whether each statement is true (T) or false (F) and correct the false statements:**

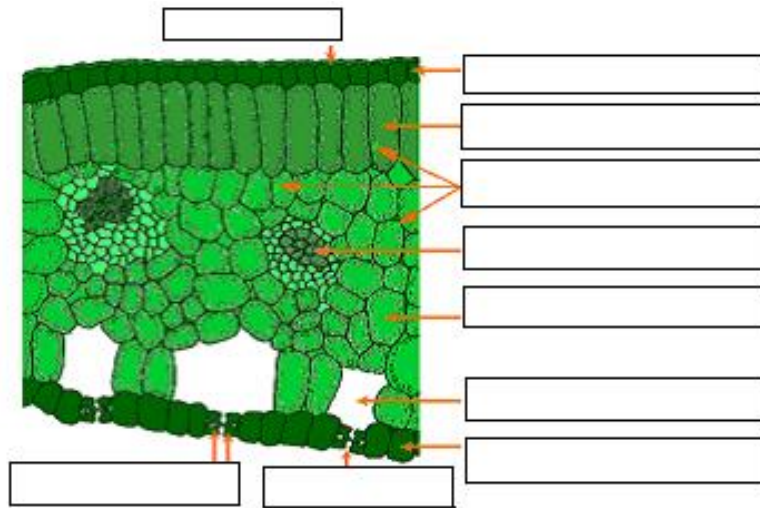
1. Crowns are compressed stems with leaves and flowers on short internodes.
2. Roots have nodes; stems do not.
3. Rhizomes, which are shortened, compressed underground stems surrounded by fleshy scales (leaves) that envelop a central bud at the tip of the stem.
4. Rhizomes can be divided into pieces, bulblets or cormels can be removed from the parent, and tubers can be cut into pieces containing eyes.

5. Trees have one main trunk and are usually taller than 12 feet while shrubs have many main stems and are usually less than 12 feet tall.

**Q19/ Define only two of the following:**

1. Stem.      2. Buds.      3. Tunicate bulbs

**Q20/ Write appropriate phrases in the following square blanks: (30 Marks)**



**Q21/ Read the following statements carefully and identify whether each statement is true (T) or false (F) and correct the false statements:**

1. Herbaceous or succulent stems contain less amounts of sapwood.
2. Vines-have long trailing stems. Some vines grow along the ground while others need a structure to grow on.
3. The edible parts of broccoli are composed of stem tissue, flower buds, and a few small leaves.

4. Lateral (axillary) buds are located on the sides of a stem and usually arise where a leaf meets a stem (an axil).
5. The pith is part of the epidermis and produces from a waxy layer called cutin which protects the leaf from diseases and dehydration.

**Q22/ Fill the following gaps:**

- 1-Permanent tissue consists of ----- and -----.
- 2-Parenchyma tissue divided on the basis of function to -----, -----  
----- and -----.
- 3-There are three types of collenchyma -----, ----- and -----  
-----.
- 4-Lenticels are -----.
- 5-Some taproots are modified for food storage as -----.

**Q23/ Enumerate only Types of roots.**

**Q24/ Enumerate only Types of underground stems.**

**Q25/ Enumerate only Types of meristems according to the position of meristem in the plant.**

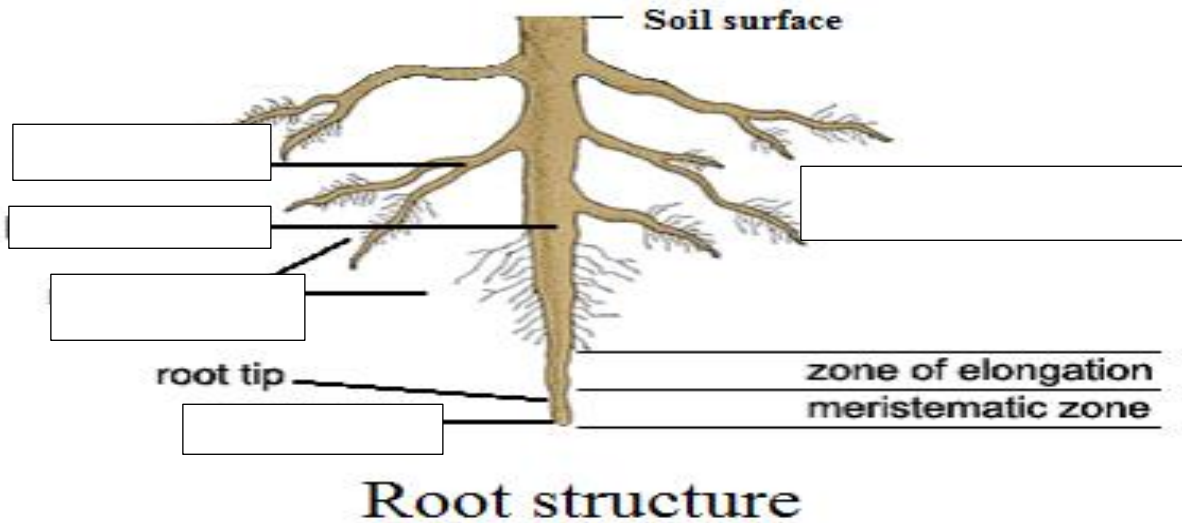
**Q26/ Enumerate only Types of vessels.**

**Q27/ Write only one function for the following:**

- 1- Root cap.
- 5- Stems.
- 6- Parenchyma tissue.
- 7- Companion cells.

8- Root hair.

**Q28/ Rewrite the correct phrases into the blank boxes of these diagrams**



**Q29/ Check the correct choices:**

1. Sclerenchyma consist of .....  
a- Fibres and sclerides      b- Palisade and spongy      c- Vessels and tracheids
2. Stomata apparatus consist of .....  
a- Root hair      b- Guard cell      c- Epidermis
3. Calyptragen forms the .....  
a- Apical meristem      b- protoderm      c- Root cap (Calyptra)
4. Vascular System consist of.....  
a- xylem and phloem      b- Vessels and tracheids      c- Fibres and sclerides
5. The first shoot of a seed plant develops from the .....  
a- Hypocotyl      b- Epicotyl      c-Cotyledon

**Q30/ What's the mean of Apical meristems.**

**Q31/ Define Differentiation.**

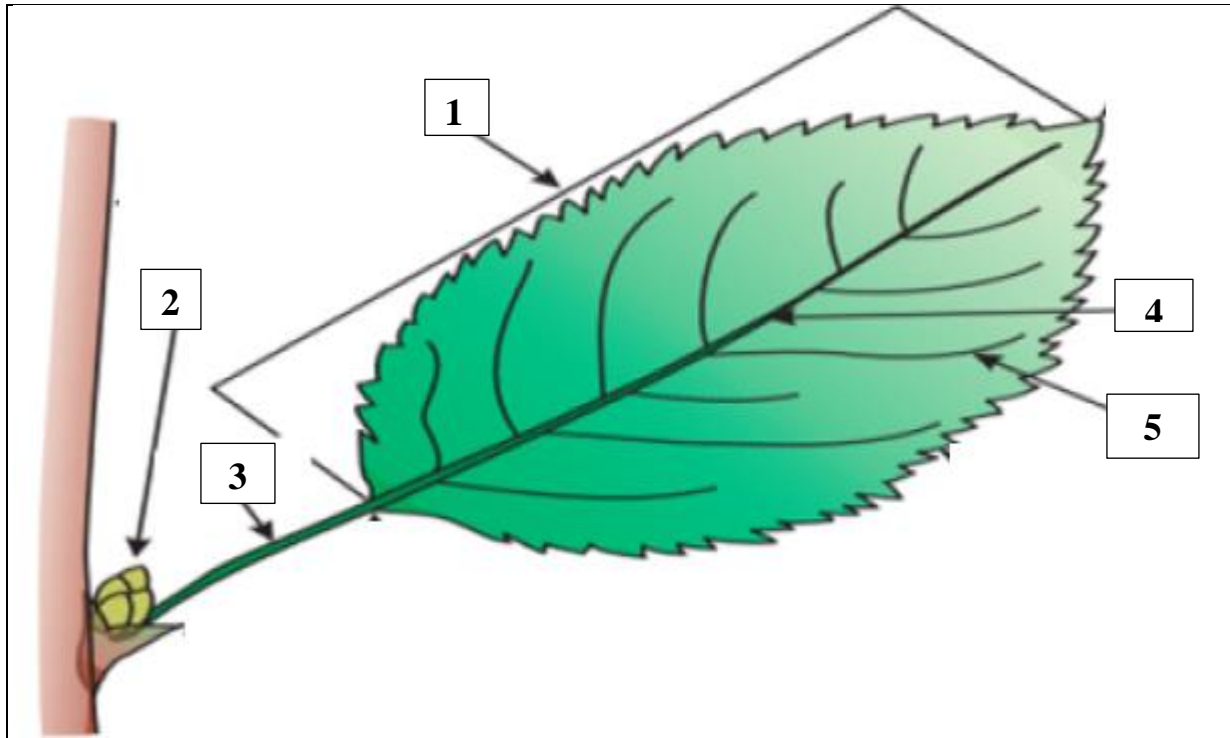
**Q32/ Enumerate the types of Collenchyma**

**Q33/ Enumerate the types of roots**

**Q34/ Write the function of Endoplasmic Reticulum**

**Q35/ Write the DNA function.**

**Q36/ Rewrite the correct phrases into the blank boxes of these diagrams**



**Q37/ Enumerate the Under-ground stems.**

**Q38/ Fill the following blanks with appropriate phrases:**

1. Stolons are -----.
2. Xylem is a tissue composed of -----, ----- and -----.
3. Some roots are modified to carry out specialized functions of ----- and -----.



4. In the parallel venation veins arising from the base of ----- and run -----.
5. Stomata apparatus which contains ----- and -----.

**Q39/ Enumerate the following:**

1. Underground stem.
2. Leaf types.
3. Vessels types.
4. Collenchyma types.
5. Aleuronic grains.

**Q40/ Mention the function of the following:**

1. Mitochondria.
2. Ribosomes.
3. DNA.
4. Root hair.
5. Companion cells.
6. leaf.

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