

Model Questions

Q1. MCQ

1. Roots not developed from the radical (a. adventitious roots) b. tuberous roots
c. normal roots).
2. Leaf arises along the main axis of the stem (a. radical leaf b. evergreen leaf
c. cauline leaf).
3. The plant cell wall arises at (a. Telophase b. Metaphase
c. Anaphase).
4. Two lateral appendages around leaf base are (a. stipulates b. pulvinus
c. sheath).
5. When some of the prop roots reach the soil surface and penetrate it (a. Contractile
roots b. Pillar roots c. Haustorial roots).
6. Root system performs many functions to the plant not from them (a. Fixation b.
Absorption c. Photosynthesis).
7. Leaflets come out from one point of the petiole (a. compound pinnate
b. compound bipinnate c. compound palmate).
8. Mid rib in middle of blade and lateral veins more or less perpendicular (a. reticulate
pinnate venation b. parallel costal venation c. parallel basal venation).
9. Leaves fall down in winter (a. Evergreen Radical
c. Deciduous).
10. If two leaves at each node the arrangement is (a. Alternate
b. Whorled c. Decussate).
11. Roots produced by the parasitic flowering plants (a. Haustorial roots
b. Climbing roots c. Aerial roots).
12. Bud not arise in a normal position e.g. on leaves (a. apical bud b. adventitious bud
c. lateral bud).
13. Flattened, with several internodes, green and leaf-like stem (a. tuber b. phylloclades
c. Cladode).
14. Modified stem nodes are circular covered by papery brown scale leaves (a. corm
b. tuber c. bulb).
15. Biology is (a. Living organisms b. Dealing with living organisms
c. Dealing with biological processes).

16. If two leaves at each node the arrangement is
 a. Whorled
 b. Decussate).
 c. Alternate
17. Roots produced by the parasitic flowering plants
 a. Climbing roots
 b. Aerial roots).
 c. Haustorial roots
18. Bud not arise in a normal position e.g. on leaves (a. apical bud
 b. adventitious bud
 c. lateral bud).
19. Root system performs many functions to the plant not from them (a. Fixation
 b. Absorption
 c. Photosynthesis).
20. Plant morphology deals with
 a. Internal forms
 b. Mixed forms
 c. External forms).
21. Flattened, with several internodes, green and leaf- like stem (a. tuber
 b. phylloclades
 c. Cladode).
22. Zone of the root system formed of meristematic cells (a. Growing apex
 b. Zone of absorption
 c. Elongation zone).
23. Modified stem nodes are circular covered by papery brown scale leaves (a. corm
 b. tuber
 c. bulb).
24. Functions of the stem are (a. Bearing and absorption
 b. Bearing and connection
 c. Bearing and fixation).
25. Cladode is (a. flattened several internodes
 b. flattened single internode.
 c. fleshy leaf bases).
26. Roots not developed from the radical (a. adventitious roots
 b. tuberous roots
 c. normal roots).
27. Branching of the rhizome is mostly (a. apical branching
 b. monopodial branching
 c. sympodial branching).
28. Leaf arises along the main axis of the stem (a. radical leaf
 b. evergreen leaf
 c. cauline leaf).
29. Two lateral appendages around leaf base are (a. stipulates
 b. pulvinus
 c. sheath).
30. Tuberous tap root originate from the (a. Base of the stem
 b. Radical
 c. Root primordia).
31. Fine thread-like roots common in family gramineae (a. Fibrous roots
 b. Tap roots
 c. Tuberous roots)
32. Leaflets come out from one point of the petiole
 a. compound pinnate
 b. compound bipinnate
 c. compound palmate).

33. Mid rib in middle of blade and lateral veins more or less perpendicular (a. reticulate pinnate venation b. parallel costal venation c. parallel basal venation). (a. Pillar roots)
34. When some of the prop roots reach the soil surface and penetrate it (a. Contractile roots b. Haustorial roots).
35. Midrib and lateral veins are similar in size and shape (a. reticulate pinnate venation b. parallel costal venation c. reticulate palmate venation).
1. Midrib in middle and lateral veins arises at different points along its sides (a. reticulate pinnate venation b. parallel costal venation c. reticulate palmate venation). The broad flattened leaf base named Pulvinus (A. Sheathed-B. C. Normal).
2. In gymnosperms, the food storage is part of the female gametophyte (A. Triploid tissue B. Diploid tissue C. Haploid tissue).
3. Transpiration important function of the leaves for (A. Conduction B. Photosynthesis C. Respiration).
4. Branching common in lower plants from apical point (A. Monopodial B. Apical C. Sympodial).
5. The surface appendages that have vascular tissue (A. Glabrous B. Hairs C. Pricks).
6. Adventitious roots varied on tap roots with (A. Function B. Original C. Structure).
7. If two leaves at each node the arrangement is (A. Alternate B. Whorled C. Decussate).
8. Roots produced by the parasitic flowering plants (A. Haustorial roots B. Climbing roots C. Aerial roots).
9. Bud arises on plant leaves (A. Apical bud B. Adventitious bud C. Lateral bud).
10. Flattened, with several internodes, green and leaf-like stem (A. Tuber B. Phylloclades C. Cladode).
11. The compound leaf with only three leaflets (A. Trifoliate B. Dissected C. Palmate).
12. Discoid stem of dwarf plants may be (A. Corm B. Tuber C. Bulb).
13. Very wavy margin (A. Sinuate B. Serrate C. Dentate).
14. The tendrils of weak stems are represented as (A. Prostrate B. Creeping C. Metamorphosed).

15. Arrangement of leaves on the stem depend on (A. Position B. Number C. Shape).

16. The most organ of enzyme content in the plants is (A. Root B. Stem C. Leaf).

17. Enlarged portion of an underground perennial stem have eyes (A. Corm B. Tuber C. Bulb).

18. Leaf arises from a reduced underground stem (A. Cauline B. Deciduous C. Radical).

19. When some of the prop roots reach the soil surface and penetrate it (A. Contractile roots B. Pillar roots C. Haustorial roots).

20. The two sides of the blade base are unequal in (A. Symmetrical B. Asymmetrical C. Decurrent).

21. All of the below are functions of the root system except:

A. Storage B. Water absorption C. Photosynthesis D. Fixation in the soil.

22. Anatomical features of hydrophytes

- A. Reduction conducting tissues.
- B. Presence of air cavities in stems and leaves.
- C. Root hairs are usually absent
- D. All them

23. The change from meristematic tissue to permanent tissue is called (A. Differentiation B. Self perpetuating C. Photosynthesis D. Cell division).

24. The inner most layer of the cortex is.....

- A. Epidermis B. Hypodermis C. Endodermis D. Pericycle

25. When the xylem and the phloem lie in the same radius, the vascular bundle is called...

- A. Collateral B. Radial C. Open D. Closed.

26. Xerophytic plants are characterized by morphological, anatomical and modifications which are mainly for the of water

- A. Increased. B. Reduction C. Transport D. Diffused

27. Lateral meristems leads to increase in of the plant organ A. Length and diameter B. length C. Diameter D. Growth.

28. In Dicot stems, vascular bundles are collateral opened due to presence of... A. Xylem
B. Phloem C. Cambium D. Parenchyma

29. In roots, cuticle is

A. Present B. Absent C. Thick D. Thin

30. In Dicot leaf, ... is differentiated into palisade and spongy

A. Fibers B. Collenchyma C. Sclerenchyma D. Mesophyll

Use the key below to answer questions 31 - 35.

I. Parenchyma cells II. Collenchyma cells III. Sclerenchyma cells V.
Phloem IV. Xylem

31. These cells are living at functional maturity

A. I only B. II only C. I & II D. I, II, V

32. These cells have thick cell walls and function in supporting only the plant

A. III B. II & III C. III & IV D. II, III, IV

33. These cells are commonly referred to as the vascular tissue

A. IV only B. V only C. IV, V D. III, IV, V

34. These are thickened external cell type(s)

A. I only B. II only C. I & II D. IV, V

35. Fibers and sclerids are examples of:

A. II only B. III only C. III, IV D. III, V

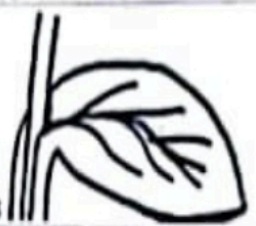
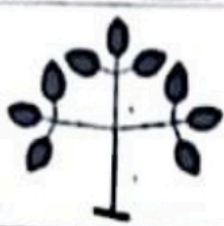
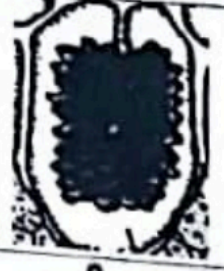
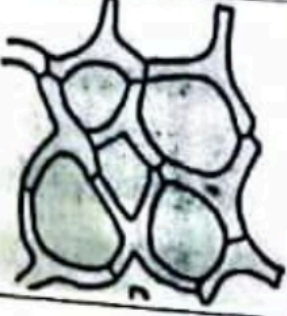
Q2- TRUE (T) or FALSE (F)

- Leaf is the only photosynthetic organ in the plant. X
- Monopodial branching is apical branching in acropetal succession. X
- Summer buds in perennial plants protected by scale leaves. X
- Radical leaf arise from node along main axis of stem. X
- Root apex is active promeristem present at the tip of the root. ✓
- Prostrate stem produces adventitious roots and aerial shoots at nodes. X
- Haustorial root store excessive amounts of food. X
- Contractile roots is coiled adventitious roots developing from discoid stem. ✓
- Dwarf shoot long stem that nodes and internodes are differentiated. X
- Sheathed leaf base is appendages from discoid stem. ✓

11. Apical bud response to elongation and differentiation the main axis of the plant. ✓
12. Root system must grow beneath the soil surface. ✗
13. Discoid stem very short that its nodes and internodes are not differentiated. ✓
14. Community is the highest level of biotic organization. ✓
15. Leaf is the only photosynthetic organ in the plant. ✗
16. Prostrate stem produces adventitious roots and aerial shoots at nodes. ✗
17. Trees have woody and lignified tissues and the branches close to the soil. ✗
18. Cotyledon is the seed leaf. ✓
19. Evergreen plants have winter buds common among trees. ✗
20. Growing apex of the root has rapid elongation cells. ✗
21. The terminal bud grows for a short time at sympodial branching. ✓
22. Ca oxalate crystals are present as cystolith. ✗
23. A tissue is a group of cells of the same type knowing as simple. ✓
24. Meristems are young tissues of the embryo, which are responsible for its growth and development and characterized by, large nucleus, dense cytoplasm and thin cell wall. ✓
25. In Monocot stem the vascular bundles are collateral. ✓
26. Lateral meristems present at the apices of the main and lateral shoots and roots (T or F)
27. Starch grains of rice are compound. (T or F)
28. Function of leucoplasts is attract of insect to facilitate the pollination(T or F)
29. Chloroplastids are present in all green parts of plants (T or F).
30. In Dicot stem, vascular bundles are scattered throughout the ground tissue (T or F)
31. Palisade parenchyma is found immediately below the upper epidermis (T or F)
32. By activity of intercalary meristems, the organ increases in length (T or F)
33. Ground tissue is differentiated into outer cortex and central pith in Dicot stem (T or F)
34. In Monocot roots, the xylem arches more than 8. (T or F)
35. The phloem parenchyma present in phloem of Monocot stem (T or F)
36. The tissue generally absent in roots of plant is collenchyma (T or F)

Q3- MATCHING BETWEEN COLUMN ONE AND TWO.

Column : One	Column : Two
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1. Simple dissected leaf I	A 
2. Decurrent base of lamina D	B 
3. Palmately venation C	C 
4. Sheathed leaf base B	D 
5. Bordered pits J	E 
6. Raphides E	F 
7. Whorled arrangement A	G 

8. Cystolith

F



H

9. Armed parenchyma

G



I

10. Trifoliate compound leaf



J