

Class: 11

Subject: Biology

Topic: Morphology of flowering plants

No. of Questions: 21

- Q1. What is meant by modification of root? What types of modification of root is found in the
- Banyan tree
 - Turnip
 - Mangrove trees
- Q2. Define the following terms:
- Aestivation
 - Placentation
 - Actinomorphic
 - Zygomorphic
 - Superior ovary
 - Perigynous flower
 - Epipetalous stamen
- Q3. What are false fruits? Give two examples.
- Q4. Mention the function performed by
- Scale leaf of onion
 - Axillary bud of cucumber
 - Tap root of beet.
- Q5. What type of ovary is found in family-Solanaceae?
- Q6. Write the botanical names of
- Tomato-Lycopersicon lycopersicum syn Solanum lycopersicu
 - Chillies-Capsicum annum
 - Tobacco-Nicotiana tabacum
- Q7. You have heard about several insectivorous plants that feed on insects. Nepenthes or the pitcher plant is one such example, which usually grows in shallow water or in marsh lands. What part of the plant is modified into a 'pitcher'? How does this modification help the plant for good even though it can photosynthesize like any other green plant?
- Q8. What is aestivation? Describe its various types found in petals.

- Q9. Open – Petals of whorl are sufficiently apart from each other.
- Q10. Why is the leaf of bombax categorized as plamtely compound multifoliate leaf?
- Q11. Why are flowers of cucumber referred to as epigynous?
- Q12. Differentiate between
- A. Bract and bracteole
 - B. Pulvinus and petiole
 - C. Pedicel and peduncle
 - D. Spike and spadix
 - E. Stamen and staminode
 - F. Pollen and pollinium
- Q13. How do you distinguish between hypogeal germination and epigeal germination? What is the role of cotyledon (s) and the endosperm in the germination of seeds?
- Q14. Differentiate between runner and sucker.
- Q15. Write an explanatory note on defense mechanisms in plants. myrmicophily and mimicry habits.
- Q16. A. Name the layer which separates endosperm from embryo in a monocotyledonous seed.
B. Where lies the cotyledon of a maize grain (monocotyledonous seed)? What is it called? Give its functions.
- Q17. Select a plant which grows in swampy areas, giving reasons.
Plant A: Develops haustoria for absorption of food.
Plant B: Develops prop roots for support.
Plant C: Develops pneumatophores to get oxygen for respiration.
- Q18. Identify the family which shows the following diagnostic features. Name two plants of the family which are used as source of food.
Flowers pentamerous, Gynoecium – bicarpellary, syncarpous, ovary placed obliquely, placentation

Q19. Complete the following table by giving the correct options:

Family	Inflorescence	Flower	Stamens	Gynoecium
Fabaceae	-	-	10	-
Solanaceae	Solitary, axillary or cymose	-	-	-
Liliaceae	-	Actinomorphic	-	Tricarpellary

Q20. Hemant used to get to vegetable market with his grandfather, a retired biology teacher. Grandfather told Hemant that chillies, brinjal, and tomato belong to the same family of plants and asked him to find out similarity in these plants.

Read the above passage and answer the following questions:

- Identify the family to which the above plants belong.
- What are the characteristic features of the family? Name any three characteristics.
- What value is reflected in grandfather's behavior?

Q21. Pointing towards a sunflower plant, father asked Manoj, a biology student, to show him the flower of this plant. Manoj plucked flowering twig and pointed towards the big yellow structure at the tip of the twig. Father laughed and clarified that it is not a single flower but a group of several flowers arranged in a disc like structure.

Read the above passage and answer the following questions:

- What is inflorescence?
- Define racemose and cymose inflorescence.
- What message is delivered by father?