

Topic :- Morphology of Flowering Plants

- 1 (c)
The flower shown in the diagram has two whorls of perianth hence, it is dichlamydeous. It is bisexual because both sex organs (stamens and ovary) are present together and hypogynous because ovary is superior.
- 2 (b)
Parasite plants develop roots which penetrate into the tissue of the host plant to absorb nutrition. Thus, these roots function as haustoria. Such roots are known as sucking roots, *e.g., Cuscuta*.
- 3 (d)
In monocots, the primary root denigrates early. Now, seminal roots arise from base of radicle. Fibrous root arise from base of radicle. Fibrous root system also arises from base of plumule and lower nodes.
- 4 (b)
The fruit wall of drupe fruit is called pericarp. It is consisted of an outermost Epicarp, middle mesocarp and an innermost layer, endocarp which a hard and stony layer.
- 5 (c)
Both Cyathium and Hypanthodium inflorescence have nector glands and unisexual flower.
- 6 (c)
Solanaceae.
Solanaceae is large family containing 90 genera over 20000 species. It is also called 'potato family'. It is widely distributed in tropics, subtropics and even in temperate zones
- 7 (c)
A-Axile
B-Basal
C-Parietal
D-Free central
- 8 (c)
Geocarpy refers to ripening of fruits underground. In the case of groundnut, the young fruit are pushed into the soil as a result of post-fertilization curvature of the stalk.
- 9 (a)
The genus-*Allium* belongs to family-Amaryllidaceae. In members of this family, the gynoecium consists of three carpels, which are syncarpous. The ovary is superior (in *Allium*) or inferior. The placentation is axile.
- 10 (d)

Ginger (*Zingiber officinale*) is a straggling sympodial rhizome, which is a perennial, fleshy, dorsiventral, horizontal, usually branched, underground stem growing beneath the surface of soil. It possesses nodes and internodes, scaly leaves, axillary buds and roots at their nodes.

11 **(d)**

Opening of a flower and drooping of a bud are examples of epinasty.

12 **(d)**

In several members of Compositae (*i.e.*, *Taraxacum*, *Tragopogon*), Dipsacaceae, Vallerianaceae, the calyx is modified into hairy pappus. It helps the fruit to float in air by parachute mechanism.

14 **(b)**

Removal of water particularly from tips of leaves of the plant is known as guttation. This process takes place through the special structures known as hydathodes, which are found at the vein ending of leaves.

15 **(d)**

Morphology of Root

(i) They normally constitutes the descending part of plant axis

(ii) They are non-green

(iii) Each functional root is covered by root cap

(iv) Root hairs are present

(v) They are positively hydrotropic

(vi) They don't have nodes and internodes

16 **(c)**

Family-Malvaceae have characteristic, monadelphous, a stamina tube around style, monotheous and extrorse androecium.

17 **(d)**

Cuscuta is a total stem parasite that grows on a number of plants like *Duranta*, *Ziziphus*, etc. *Cuscuta* sends a number of haustoria into the host. Each haustorium digests its way to reach vascular strand of the host.

18 **(b)**

In pea (*Pisum sativum*), bean (*Dolichos lablab*), etc, there are five petals, the largest (standard or Vexillum) overlaps the two lateral petals (wings or alae) which in turns overlap the two smallest, anterior but united petals (keel or carina). This type of aestivation is known as vexillary or papilionaceous.

19 **(d)**

Generally in the monocotyledons, the food is commonly stored inside the endosperm. But in the orchid, the seeds are non-endospermic

20 **(a)**

Lodicules are two scale-like structures that lie at the base of the ovary of a grass flower including jowar.

ANSWER-KEY										
Q.	1	2	3	4	5	6	7	8	9	10
A.	C	B	D	B	C	C	C	C	A	D
Q.	11	12	13	14	15	16	17	18	19	20
A.	D	D	B	B	D	C	D	B	D	A

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