# MORPHOLOGY OF FLOWERING PLANTS

**1.** A slender lateral branch arises from the base of the main axis and after growing aerially for some time arch downwards to touch the ground. Such type of modification is

(1) Runner (2) Sucker

(3) Stolon (4) Offset

**2.** A lateral branch with short internodes and each node bearing a rosette of leaves and a tuft of roots in aquatic plants, such type of modification is

(1) Runner (2) Stolon

(3) Sucker (4) Offset

**3.** Lateral branches originate from the basal and underground portion of the main stem, grow horizontally beneath the soil and then comes out obliquely upward giving rise to leafy shoots, such type of modification is

(1) Runner (2) Stolon

(3) Sucker (4) Offset

**4.** In some leguminous plants the leaf base may become swollen, it is called :-

(1) Pulvinus (2) Lamina

(3) Leaf margin (4) Stipule

**5.** When the veins run parallel to each other within a lamina, the venation is termed as :-

(1) Parallel (2) Reticulate

(3) Both 1 & 2 (4) Pinnate

**6.** If the leaflets are present on a common axis, the rachis, leaf is called :-

(1) Palmate compound leaf

(2) Pinnate compound leaf

(3) Simple leaf

(4) Trifoliate leaf

**7.** If the leaf lets are attached at the tip of petiole, leaf is called :-

(1) Pinnate compound leaf

(2) Palmate compound leaf

(3) Simple leaf

(4) Unipinnate leaf

**8.** When single leaf arises at each node then phyllotaxy is called :-

(1) Alternate (2) Opposite

(3) Whorled (4) Pinnate

**9.** Opposite phyllotaxy is present in :-

(1) Mustard (2) Guava

(3) China rose (4) *Alstonia*

**10.** In flower, different whorls arranged successively on the swollen end of the pedicel, that swollen end is called :-

(1) Thalamus (2) Calyx

(3) Peduncle (4) Corolla

**11.** Ovary is superior in

(1) Rose (2) Mustard

(3) Peach (4) Guava

**12.** Ovary is inferior in

(1) Guava (2) Rose

(3) China rose (4) Peach

**13.** If one margin of the sepal or petal overlaps that of the next one and so on this aestivation is called :-

(1) Twisted (2) Imbricate

(3) Valvate (4) Vexillary

**14.** If the margins of sepals or petals overlap one another but not in any particular direction, the aestivation is called :-

(1) Imbricate (2) Valvate

(3) Twisted (4) Vexillary

**15.** Each ovary bears one or more ovules attached to a flattened cusion like structure called :-

(1) Stigma (2) Ovary

(3) Placenta (4) Style

**16.** In this placentation the ovules develop on the inner wall of ovary or on peripheral part it is called :-

(1) Marginal (2) Parietal

(3) Axile (4) Basal

**17.** Mango and Coconut develops from

(1) Monocarpellary gynoecium, inferior ovary

(2) Monocarpellary gynoecium, superior ovary

(3) Multicarpellary gynoecium, inferior ovary

(4) Multicarpellary, superior ovary

**18.** Inflorescence in members of papilionatae is

(1) Racemose (2) Cymose

(3) Cyathium (4) Hypanthodium

**19.** *Sesbania* belongs to

(1) Liliaceae (2) Fabaceae

(3) Solanaceae (4) Cruciferae

**20.** In *Solanum*, inflorescence is

(1) Cymose (2) Racemose

(3) Umbel (4) Verticillaster

**21.** Seeds in fabaceae are

(1) Non endospermic (2) Endospermic

(3) Perispermic (4) Monosporic

**22**. In monocots fibrous root system arise from

(1) Radicle (2) Apex of stem

(3) Base of stem (4) Any where from stem

**23**. Regarding to adventitious roots find out the odd one

(1) Grasses (2) *Monstera*

(3) Banyan (4) Mustard

**24**. Find out the right sequence to various regions of root tip from apex to base

(1) Maturation zone, elongation zone, Meristematic zone & root cap

(2) Root cap, Meristematic zone, elongation zone & Maturation zone

(3) Root cap, elongation zone, Meristematic zone & Maturation zone

(4) Maturation zone, meristematic zone, elongation zone & root cap

**25**. Regarding to modification of root, find out the odd match

(1) Storage of food – Potato

(2) Support – Banyan

(3) Gaseous exchange – *Rhizophora*

(4) Photosynthesis – *Tinospora*

**26**. Regarding to conversion of Axillary bud into tendril, which of the following is odd

(1) Cucumber (2) Pumpkins

(3) Watermelon (4) *Bougainvillea*

**27**. Fleshy cylindrical photosynthetic stem is found in

(1) *Opuntia* (2) *Euphorbia*

(3) *Bougainvillea* (4) *Cuscuta*

**28**. A lateral branch with short internodes and each node bearing a rosette of leaves and a tuft of roots is found in

(1) Ginger (2) Banana

(3) *Eichhornia* (4) Potato

**29**. Leaves are lateral, generally flattened structure born on nodes. They originate from ..... and arranged in ..... manner

(1) Apical meristem, Acropetal

(2) Lateral meristem, Acropetal

(3) Apical meristem, Basipetal

(4) Lateral meristem, Basipetal

**30**. About leaf which of the following statement is not correct ?

(1) Axillary buds are present in axil of leaflets

(2) In pinnately compound leaf leaflets are present on rachis, which represents the midrib

(3) In palmately compound leaf, leaflets are attached at a common point, it is tip of the petiole

(4) In compound leaf incisions of lamina reach upto the mid rib, breaking it into number of leaflets

**31**. Regarding phyllotaxy which of the following is odd

(1) China rose (2) Mustard

(3) Sunflower (4) *Alstonia*

**32**. When two leaves arise from same node, this type of phyllotaxy called

(1) Alternate (2) Opposite

(3) Whorled (4) Spiral

**33**. Arrangement of flowers on the floral axis is termed as inflorescence. Regarding to inflorescence which of the following statement is not correct

(1) In racemose – main axis is continues to grow

(2) In cymose – main axis terminates into flower

(3) In racemose – flowers are in basipetal succession

(4) In cymose –growth of main axis is limited

**34**. Regarding to symmetry of flower which of the following plant is odd

(1) Pea (2) Mustard

(3) *Datura* (4) Chilli

**35**. Find out the wrong match

(1) Actinomorphic – Datura

(2) Radial symmetry – Mustard

(3) Zygomorphic – Bean

(4) Bilateral Symmetry – Chilli

**36**. In which of the following plant flower can not be divided into two similar halves by any vertical plane

(1) Mustard (2) *Cassia*

(3) *Canna* (4) *Datura*

**37**. In which of the following plant gynoecium occupies the highest position while the other parts situated below it ?

(1) Brinjal (2) Plum

(3) Rose (4) Guava

**38**. Match the following and select correct option :-

| | |
|---|---|
| (a) Hypogynous | (i) Lily, Onion |
| (b) Perigynous | (ii) Cucumber, Ray florets of sunflower |
| (c) Epigynous | (iii) Plum, Peach |
| (d) Perianth | (iv) Chinarose, Brinjal |

(1) a(iv), b(iii), c(ii), d(i) (2) a(iv), b(ii), c(iii), d(i)

(3) a(iii), b(ii), c(iv), d(i) (4) a(iii), b(iv), c(ii), d(i)

**39**. Calyx is the outermost accessory whorl of flower. What is the function of calyx?

(1) Helps in pollination

(2) Helps in protection of flower during bud condition

(3) Helps in fertilization

(4) Helps in seed germination

**40**. The mode of arrangent of sepals or petals in floral buds with respect to other members of the same whorl is known as

(1) Adhesion (2) Cohesion

(3) Aestivation (4) Plancentation

**41**. Match the following with respect to aestivation in petals and select correct option :-

| | |
|---|---|
| (a) Valvate | (i) Chinarose |
| (b) Twisted | (ii) *Calotropis* |
| (c) Imbricate | (iii) Pea |
| (d) Vexillary | (iv) *Cassia* |

(1) a(ii), b(i), c(iv), d(iii) (2) a(ii), b(iii), c(iv), d(i)

(3) a(i), b(ii), c(iii), d(iv) (4) a(iv), b(iii), c(ii), d(i)

**42**. Which type of aestivation is found in petals of cotton?

(1) Valvate (2) Twisted

(3) Imbricate (4) Vexillary

**43**. Match the following

(a) Epiphyllous stamen (i) *Citrus*

(b) Monoadelphous stamen (ii) Pea

(c) Diadelphous stamen (iii) Chinarose

(d) Polyadelphous stamen (iv) Lily

(1) a(ii), b(i), c(iii), d(iv)

(2) a(i), b(ii), c(iii), d(iv)

(3) a(iv), b(iii), c(i), d(ii)

(4) a(iv), b(iii), c(ii), d(i)

**44**. Variation in length of the filament of stamen with in flower can be seen in

(1) *Salvia* (2) Mustard

(3) Chinarose (4) Both 1 & 2

**45**. Match the following and select correct option :-

| | |
|---|---|
| (a) Parietal | (i) *Dianthus* |
| (b) Axile | (ii) Sunflower |
| (c) Free central | (iii) Mustard |
| (d) Basal | (iv) China rose |

(1) a(iii), b(iv), c(ii), d(i)

(2) a(iii), b(iv), c(i), d(ii)

(3) a(i), b(ii), c(iii), d(iv)

(4) a(i), b(ii), c(iv), d(iii)

**46**. In which type of placentation, ovules are present on central axis

(1) Axile (2) Parietal

(3) Free central (4) Both 1 & 3

**47**. A dot on the top of the floral diagram shows

(1) Adhesion (2) Aestivation

(3) Mother axis (4) Position of ovary

**48**. In old classifications family leguminosae was classified into of three subfamilies. Which of the subfamily of leguminosae is now considered as Fabaceae

(1) Papilionatae

(2) Caesalpinoidae

(3) Mimosoidae

(4) Compositae

**49**. Swollen placenta with oblique septum can be seen in

(1) Brassicaceae (2) Fabaceae

(3) Liliaceae (4) Solanaceae

**50**. Colchicine a mitotic poison can be obtained from a plant of

(1) Brassicaceae (2) Fabaceae

(3) Solanaceae (4) Liliaceae

**51**. Perianth condition is characteristic of

(1) Brassicaceae (2) Fabaceae

(3) Solanaceae (4) Liliaceae

**52**. Match the following and select correct option

| | |
|---|---|
| (a) Mustard | (i) Liliaceae |
| (b) Mulaithi | (ii) Solanaceae |
| (c) Ashwagandha | (iii) Fabaceae |
| (d) *Tulip* | (iv) Brassicaceae |

(1) a(iv), b(iii), c(ii), d(i)

(2) a(iv), b(iii), c(i), d(ii)

(3) a(iii), b(iv), c(ii), d(i)

(4) a(i), b(ii), c(iii), d(iv)

**ANSWERS KEY**

| Que. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Ans.** | **3** | **4** | **3** | **1** | **1** | **2** | **2** | **1** | **2** | **1** | **2** | **1** | **1** | **1** | **3** | **2** | **2** | **1** | **2** | **1** |
| **Que.** | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 |
| **Ans.** | **1** | **3** | **4** | **2** | **1** | **4** | **2** | **3** | **1** | **1** | **4** | **2** | **3** | **1** | **4** | **3** | **1** | **1** | **2** | **3** |
| **Que.** | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | | | | | | | | |
| **Ans.** | **1** | **2** | **4** | **4** | **2** | **4** | **3** | **1** | **4** | **4** | **4** | **1** | | | | | | | | |