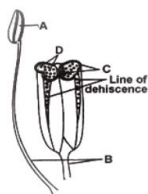


# BIOLOGY CLASS 12 BATCH

## Sexual Reproduction in Flowering Plants

DPP-01

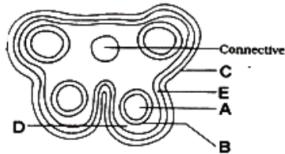
- Diversity of structure of the inflorescences, flower and floral parts–
  - Are responsible for making our garden beautiful
  - Ensure self-pollination
  - Are adaptations to ensure formation of end products of sexual reproduction
  - Ensure anemophily
- Which of the following is false?
  - Flowers do not exist only for us to be used for our own selfishness
  - All flowering plants show sexual reproduction
  - Gymnosperms, being nonflowering, do not show sexual reproduction
  - Flowers are objects to aesthetic, ornamental, social, religious and cultural value
- The proximal part of the filament of stamen is attached to:-
  - Thalamus or the petal
  - Sepals or thalamus
  - Pedicel or petiole
  - Ovary or ovule
- Identify 1 to 4 –



|     | a      | b        | c               | d             |
|-----|--------|----------|-----------------|---------------|
| (1) | Anther | Petiole  | Pollen Sac      | Megas pore    |
| (2) | Anther | Petiole  | Megaspor angium | Pollen granis |
| (3) | Anther | Pedicel  | Megaspo Rangium | Pollen granis |
| (4) | Anther | Filament | Pollen Sac      | Pollen granis |

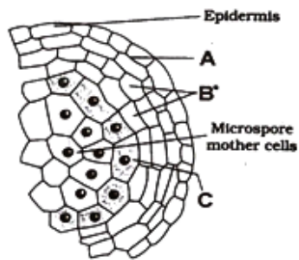
- Which of the following is part of sporophyte?
  - Leaf of angiosperm
  - Root of angiosperm
  - Stem of angiosperm
  - All of the above
- In the flower, the male and female reproductive structures are the \_\_\_\_\_ and the \_\_\_\_\_ respectively.
  - Androecium and Gynoecium
  - Gynoecium and Androecium
  - Gametophyte and Sporophyte
  - Sporophyte and Gametophyte
- Whorl of stamen is \_\_\_\_\_
  - Androecium
  - Gynoecium
  - Staminode
  - Anther
- Mark the incorrect statement.
  - The number and length of the stamens are variable in flowers of different species
  - Anther is terminal generally bilobed structure
  - Filament is long and slender stalk
  - A typical angiosperm anther is bilobed with each lobe having one theca.
- In anther often a longitudinal groove runs in lengthwise separating the \_\_\_\_
  - Lobe
  - Groove
  - Theca
  - Anther

10. The above diagram refers to a T.S. of anther. Identify A to E respectively–



- (1) Sporogenous tissue, tapetum, epidermis, middle layer, endothecium
- (2) Sporogenous tissue, epidermis, tapetum, middle layer, endothecium
- (3) Sporogenous tissue, epidermis, middle layer, tapetum, endothecium
- (4) Sporogenous tissue, tapetum, middle layer, epidermis, endothecium

11. The below given diagram is an enlarged view of one microsporangium of a matured anther. Identify A, B, and C.



- (1) A – Middle layer, B– Endothecium, C–Tapetum
- (2) A-Endothecium, B-Tapetum, C-Middle layer
- (3) A-Endothecium, B-Middle layer, C-Tapetum
- (4) A-Tapetum, B-Middle layer, C- Endothecium

12. Each cell of sporogenous tissue in anther is–

- (1) Microspore
- (2) Pollen
- (3) Potential pollen or microspore mother cell
- (4) Megaspore mother cell

13. Which of the following is incorrectly matched?

- (1) Microsporangia – circular
- (2) Anther – Tetragonal
- (3) Epidermis – Protection
- (4) Middle layer – Multinucleated

# ANSWER KEY

1. (3)
2. (3)
3. (1)
4. (4)
5. (4)
6. (1)
7. (1)
8. (4)
9. (3)
10. (1)
11. (3)
12. (3)
13. (4)