

BOTANY Paper-A

(Diversity of Seed Plants and their Systematics – II)

Time Allowed : 3 hours

Maximum marks : 36

Note : Attempt five questions in all, selecting one question from each Unit. Question No. I is compulsory. All questions carry equal marks. Draw diagrams wherever necessary.

1. (A) Multiple choice questions. Pick up the correct choice :

(i) Amaltas is the common name of :

- | | |
|--------------------|--------------------|
| (a) <i>Delonix</i> | (b) <i>Saraca</i> |
| (b) <i>Cassia</i> | (d) <i>Petunia</i> |

(ii) When filament is attached to the base of another, it is known as :

- | | |
|----------------|---------------|
| (a) Basifixed | (b) Adnate |
| (c) Dorsifixed | (d) Versatile |

(iii) When one margin of petal overlap regularly with another, the aestivation is known as :

- (a) Open (b) Valvate
(c) Twisted (d) Imbricate

(iv) When stamens are indefinite and free :

- (a) Polyadelphous (b) Syngenesious
(c) Synandrous (d) Polyandrous

(v) Cruciform corolla is the feature of family :

- (a) Brassicaceae (b) Solanaceae
(c) Fabaceae (d) Rutaceae

(B) Fill in the blanks :

- (i) Gynobasic style is present in
(ii) Out of four stamens in a flower, two are long and two are short, the condition is known as
(iii) Monothealous anthers are present in family
(iv) Papilionaceous corolla is present in family
(v) A flower with bilateral symmetry is known as 12

UNIT-I

2. Define the following terms :

Isotype, Paratype and Topotype 2,2,2

3. What is Bentham and Hooker's system of classification? Give its merits and demerits. 3,3

UNIT-II

4. Describe the distinguishing features of family Graminae and Brassicaceae. 3,3

5. Draw floral diagram of following flowers :

(a) Asphodelus

(b) Ranunculus 3,3

UNIT-III

6. Give the diagnostic features of family Fabaceae and Umbelliferae. 3,3

7. Describe the androecium of Rutaceae and Malvaceae. 3,3

UNIT-IV

8. Give the diagnostic features of family Labiatae and Chenopodiaceae. 3,3

9. Give floral formula of three flowers i.e. Helianthus, Calotropis and Solanum 2,2,2