

**Q.P. Code – 50828**

**Third Year B.Sc. Degree Examination**

**SEPTEMBER/OCTOBER 2013**

**(Directorate of Distance Education)**

**Botany**

**(DSC 290) Paper III – MORPHOLOGY, TAXONOMY OF  
ANGIOSPERMS, ECONOMIC BOTANY AND CYTOGENETICS**

*Time : 3 Hours]*

*[Max. Marks : 75/85*

**Instructions to Candidates :**

- 1) *Students who have attended 25 marks IA scheme will have to answer for total of 75 marks.*
- 2) *Students who have attended 15 marks IA scheme will have to answer for total of 85 marks.*
- 3) **One** mark questions should be answered in first two pages of the answer book.
- 4) Draw **neat** labelled diagrams **wherever** necessary.
- 5) Question No. **V** is **compulsory** for **85** marks scheme **only**.

I. Simple Answer Questions :

Answer in a word or a phrase or a sentence :

**10 × 1 = 10**

1. What is Test cross?
2. Name the inflorescence present in leucas.
3. Where do you find staminal corona?
4. Define Phyllode.
5. What is placentation?
6. Who discovered mitochondrion?
7. What is nullisomy?

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8. Write the botanical name of clove.
9. What is the function of endosperm?
10. Give an example for siliqua fruit.

II. Short Answer Questions :

Answer any **FIVE** of the following :

**5 × 3 = 15**

11. What is aestivation? Mention the types.
12. Describe the fluid mosaic model of cell membrane.
13. Classify the chromosomes based on the position of the centromere.
14. Explain tap root modification for storage.
15. What are the characters that the Mendel considered for selecting the pea plant as his experimental material for hybridization?
16. Explain capitulum inflorescence with an example.
17. Differentiate capsule and follicle with an example.

III. Medium Answer Questions :

Answer any **FIVE** of the following :

**5 × 6 = 30**

18. List out the salient features of Apiaceae.
19. Describe the different types of multiple fruits.
20. Define Epistasis. Explain it with plant example.
21. Give an account of oil yielding plants.
22. Explain the different types of cymose inflorescence, with examples.
23. Write the botanical name and family of the following plants :
  - (a) Paddy
  - (b) Jowar
  - (c) Groundnut
  - (d) Cotton
  - (e) Turmeric
  - (f) Pepper

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IV. Long Answer Questions :

Answer any **TWO** of the following :

**2 × 10 = 20**

24. Enumerate the salient features of Rutaceae and Cucurbitaceae.
25. Explain linkage and crossing over in Maize.
26. Explain modification of stem with examples.
27. Write a note on components of cell.

V. **Compulsory** Question for **85** marks scheme only :

Answer any **ONE** of the following :

**1 × 10 = 10**

28. Enumerate the salient features of Poaceae and Arecaceae. Mention two plants in each family with botanical name.
  29. Write a note on Narcotic and Beverage plants.
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