

Q.P. Code – 50828

Third Year B.Sc. Degree Examination, OCTOBER/NOVEMBER 2016

(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) *Answer all questions.*
- 2) *Draw neat labelled diagrams wherever necessary.*
- 3) *Question No. V is **compulsory** for **85**-marks scheme only.*

I. Simple Answer Questions :

10 × 1 = 10

Answer in a word or a phrase or a sentence :

1. What is middle lamella?
2. What is placentation?
3. Define Phyllode.
4. Write the Botanical name of Madhunashini.
5. What is Test cross?
6. Name the family having syngenesious anthers.
7. What are tendrils?
8. Define Translocation.
9. Define Incomplete dominance.
10. Name the suicide bag of the cell.

II. Short Answer Questions :

5 × 3 = 15

Answer any **FIVE** of the following :

11. Describe the structure of monocot seed.
12. What is phyllotaxy? Explain different types.
13. Explain Monohybrid cross.
14. Explain endoplasmic reticulum.

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15. Write a note on oil yielding plants.
16. Describe any three sub-aerial modifications of stem.
17. Explain any two types of special types of Inflorescence.

III. Medium Answer Questions :

5 × 6 = 30

Answer any **FIVE** of the following :

18. Write the family name, scientific name and economic importance of following plants :
 - (a) Bengal gram
 - (b) Lady's finger
 - (c) Ragi
19. Describe the structure and functions of Chloroplast.
20. Explain different types of simple fruits.
21. Describe family Myrtaceae and write any four scientific names of Economic importance.
22. Explain supplementary factor with suitable example.
23. Give an account of Beverages.

IV. Long Answer Questions :

2 × 10 = 20

Answer any **TWO** of the following :

24. Explain merits and demerits of Bentham and Hooker System of classification.
25. Explain Aneuploidy and its significance.
26. Explain the salient features of family Poaceae and Arecaceae.
27. Explain the chemical composition, fluid-mosaic model and functions of plasma membrane.

V. Compulsory Question for 85 marks scheme only :

1 × 10 = 10

Answer any **ONE** of the following :

28. Explain the structure of chromosome and classify based on the position of centromere.
29. Write a note on :
 - (a) Fibre yielding plants
 - (b) Field and herbarium techniques