

Third Year B.Sc., Degree Examinations

August/September 2011

Directorate of Distance Education

BOTANY

Paper III : Morphology, Taxonomy of Angiosperms, Economic Botany and Cytogenetics

Time: 3 hrs.]

[Max.Marks:75/85

Instructions to the 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 :

10 X 1= 10Marks

Answer in a word, or a phrase or a sentence.

1. What is Centromere ?
2. What is the Botanical name of Safflower ?
3. What is phyllotaxy ?
4. Name the fruit of Cucurbitaceae.
5. What is Euchromatin ?
6. In which family intramarginal vein, inferior ovary are seen ?
7. Give the ratio of supplementary factors.
8. Which cell organelle is called 'suicide bag'?
9. What is phyllode ?
10. Give an example for artificial system of classification.

II. Short Answer Questions.

Write any FIVE of the following.

5X 3= 15Marks

11. Describe the root modifications for mechanical support.
12. Explain the structure of Chloroplast.
13. Describe monohybrid cross.

14. Write a note on placentation.
15. With a neat labelled diagram, explain leaf modification in Nephenthus
16. Write the botanical names of any 3 spices that you have studied.
17. Explain the inflorescence of Asteraceae.

III. Medium answer questions.

Answer any FIVE of the following.

5X6= 30Marks

18. Enumerate the salient features of Brassicaceae and write Botanical names of two plants.
19. Give an account of structure and functions of Mitochondria.
20. Write a note on pulses that you have studied.
21. Describe the types of aestivation.
22. Explain the complementary factors by quoting plant example.
23. Write the Botanical names and families of the following. :
 - a) Aswagandha
 - b) Tobacco
 - c) Teak
 - d) Groundnut
 - e) Jowar
 - f) Cotton

IV. Long answer questions :

2X10=20 Marks

Answer any TWO of the following.

24. Explain different types of Racemose inflorescence.
25. Describe the salient features of Rubiaceae and Asteraceae with two examples.
26. Explain the structure of chromosome with a neat labelled diagram and chromosome types.
27. What is chromosomal aberration ? Describe the types of chromosome aberrations.

V. (Compulsory question for 85 marks scheme only).

1X10=10 Marks

Answer any ONE of the following.

28. Enumerate salient features of Malvaceae and Arecaceae. Give Botanical name of Arecaceae any two examples for each family.
29. Explain structure and function of endoplasmic reticulum.
