

**Third Year B.Sc., Degree Examinations**

**December 2017**

*(Directorate of Distance Education)*

**BOTANY**

**DSC290: Paper III: Morphology, Taxonomy of Angiosperms, Economic Botany and Cytogenetics**

*Time: 3 hrs.]*

*[Max.Marks:75/85*

***Instruction 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 diagram wherever necessary.*
5. *Q.No. V is compulsory for 85 marks scheme.*

**I. *Simple answer questions :***

***10 X 1= 10 Marks***

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

1. What is mono hybrid cross ?
2. Define 'Epigeal Germination'.
3. Give an example for prop root.
4. Expand 'ICBN'.
5. Which organelle is known as Svedal bag of cell?
6. Define "Fruit".
7. Who discovered Golgi complex ?
8. Write the phenotypic ratio of incomplete dominance ?
9. Name the fruit of family cucurbitaceae.
10. What is Stylopodium ?

**II. *Short answer questions :***

***Answer any FIVE of the following.***

***5X 3= 15 Marks***

11. Explain Thyrsus with example.

***Contd...2***

12. Write a note on pitcher plant.
13. Mention the function of Endoplasmic reticulum.
14. Describe the floral characters of malvaceae.
15. Write a note on herbarium technique.
16. Explain the test cross with flow chart.
17. Describe different types of multiple fruit.

**III. Medium answer questions :**

*Answer any FIVE of the following.*

**5X6= 30 Marks**

18. Explain supplementary factor with suitable example.
19. Mention the salient features of family Poaceae. Give two examples.
20. Give an account of Fibre yielding plants.
21. Explain Karpanchenko's Experiment.
22. Describe ultrastructure of Chloroplast.
23. Write the botanical name, family and Economic importance of the following.
  - a) Teak
  - b) Coffee
  - c) Ground nut

**IV. Long answer questions :**

**2X10=20 Marks**

*Answer any TWO of the following.*

24. Mention the differences between subfamily papilionaceae and caesalpiniaceae.
25. Explain Duplex model of DNA.
26. Write economic importance of any 10 plants of family solanaceae.

**V. Compulsory question for 85 marks scheme only. Long answer questions.**

*Answer any ONE of the following.*

**1X10=10 Marks**

27. Explain dihybrid cross with example.
28. Describe different types of fruits.

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