

GURUDAS COLLEGE
DEPARTMENT OF BOTANY
ONLINE INTERNAL EXAMINATION, 2020
BOTANY — HONOURS
B. Sc PART-II (1+1+1)
Paper: III
(Full Marks -50)

Date of the Examination: 7th Dec, 2020

The figures in the margin indicate full marks
Candidates are required to give their answers in their own words as far as practicable

1. Answer any two of the following questions: 20X2
- a) Write a note on Phytoremediation. Discuss the floristic component of Eastern Himalaya? Describe the anomalous secondary growth in stem of *Bignonia* with diagram. What is Anomocytic stomata? 5+5+5+5
- b) What is Carrying capacity? Discuss the *ex-situ* conservation method. Describe the anomalous secondary growth in stem of *Tecoma* with diagram. What is the difference between protosteles and siphonosteles. 5+5+5+5
- c) What is genetic diversity? Enumerate the Phytogeographical regions of India according to D. Chatterjee (1960). Describe with example the different types of stomata in dicotyledonous plant. What is leaf trace? 5+5+5+5
- d) Discuss the various seral stages of a Hydrosere. Write a short note on Endemism in Indian flora. Discuss anatomical adaptations of Hydrophytes. What is Ectophloic siphonostele? 5+5+5+5
- e) Describe the reproductive structure in *Psilotum* sp with diagrams. Give the structural features and geological distribution of *Rhynia*. 10+ 10
- f) Describe the female reproductive structure of *Pinus* sp with diagrams. Write a short note the structural feature and the geological distribution of reconstructed genera *Williamsonia*. 10+ 10

- g) Compare the sporophytic structure of *Selaginella* and *Equisetum* with diagrams. Write a brief note on heterospory. 12 +8

2. Answer any one of the following questions:

- a) Discuss the role of seed-bank in the conservation of plant diversity. 10
b) Explain intrastelar and extrastelar secondary growth in plants. 5+5
c) Write a short note on the economic importance of gymnosperms. 10
d) Write a short note on the economic importance of Pteridophytes. 10

Instructions for submission of answer scripts

1. Write the front page/top sheet as per instruction. Give page numbers to each page.
2. Scan the pages in sequence and make a single PDF file.
3. Rename file as per instruction.
4. Email the PDF file within the stipulated time to **honsbotanygurudacollege@gmail.com** and also give CC email to **honsbota@gmail.com** and **gdcug20@gmail.com**