

2022

BOTANY

[P.G.]

(CBCS)

(M.Sc. First Semester End Examinations-2022)

PAPER-104

[Pteridophytes and Gymnosperms]

Full Marks: 40

Time: 02 Hrs

The figures in the right hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

[USE SEPERATE ANSWER SCRIPT FOR EACH GROUP]

Unit – I

[Pteridophytes]

F.M. - 20

Group - A

1. Answer any four questions of the following: 4x1= 4
- a) What is meant by bipolar growth habits?.
 - b) Mention the names of gametophytes of Rhynia.
 - c) What is coenosori? Where does it occur?.
 - d) Name one aquatic and one xerophytic ferns.

(2)

- e) Name one homosporous and one heterosporous ferns
- f) What is meant by resurrection plant? Give an example.
- g) Name one epiphytic species each of *Lycopodium* and *Sellaginella*.

Group - B

2. Answer any two questions: 4x2= 8
- a) Write a short note on Asteroxylon. 3+1
 - b) Characterise Filicopsida Cite two examples.
 - c) Write briefly about apogamy in pteridophytes. .
 - d) Give the outline classification of progymnosperms.

Group - C

3. Answer any one question 1x8= 8
- a) Characterise Lepidodendrales. Diagrammatically describe parichnos scar found in the members of Lepidodendrids. Write a short note on Lepidocarpon. 2+3+3.
 - b) Write briefly on the stelar types of pteridophytes.

(3)

Unit – II

[Gymnosperms]

F.M. - 20

Group - A

1. Answer any four questions of the following: 4x1= 4
- a) What do you mean by pollination drop?
 - b) Why *Cycas* called a living fossil?
 - c) What is cleavage polyembryony?
 - d) Distinguish between manoxylic and pinoxylic wood?
 - e) What is a cupule?
 - f) Mention two angiosperm characters of *Gnetum. Sp.*

Group - B

2. Answer any two questions: 4x2= 8
- a) Write down the distribution of conifers in India. Mention two important characters of pteridospermales. 3+1=4
 - b) Discuss the pre-pollen and pre-ovulel concept. 4
 - c) Write down in brief the evolutionary trends of mega sporophyll of extinct and extant members of Cycadales. 4
 - d) Write a short note on economic uses of gymnosperms 4

Group – C

3. Answer any one question 1x8= 8
- a) Write short note on (4 14)

(4)

- i) Caytonia fruit
 - ii) Glossopteris plant 4+4.
- b) In brief, write down the origin of seed cone complex among extinct and extant confers. 8