

GURUDAS COLLEGE

B. Sc. SEMESTER II (Honours) Examination Online Internal Examination, 2020

Subject: BOTA

Subject Category: Honours

Course: CC 4

Course Name: Archaegoniate

Full Marks: 50

Date of Examination: 3rd December, 2020

The figures in the margin indicate full marks

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

Answer each group in a new page

Group A ARCHAEGONIATE Theoretical (BOT-A-CC-2-4-TH) FM: 25

1. Answer the following questions (Any 10):

2x10

- I. Why bryophytes are called amphibians?
- II. Mention two land adaptive features of the early vascular cryptogams.
- III. Name two Indian species of *Cycas*.
- IV. Define Telome.
- V. Mention two common Indian species of *Marchantia*.
- VI. Give two similarities between algae and Bryophyte.
- VII. What is shower of sulphur?
- VIII. Draw a label diagram on L.S of cellular structure of thallus of *Anthoceros* sp.
- IX. Write two angiospermic characters of *Gnetum*.
- X. Name one heterosporous and one aquatic fern.
- XI. State the function of Operculum in *Funaria* sp.
- XII. Give an example of Aquatic Bryophyte and pollution sensitive Bryophyte?
- XIII. What is Carinal canal? Where is it found?

XIV. Name two timber yielding species of Gymnoperm.

XV. What is gemma cup?

2. Answer any **one** from the following questions:

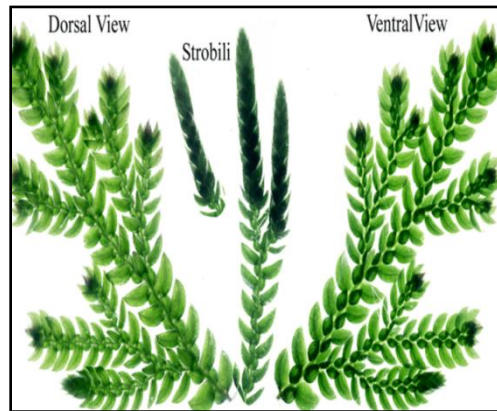
1x5

- I. Write a short note on 'Heterospory and seed habits'.
- II. Draw a labelled diagram of L.S of Capsule of *Funaria* sp.
- III. Discuss the morphological nature of 'Ovuliferous scale' of *Pinus* sp.

Group B ARCHAEGONIATE (BOT-A-CC-2-4-P) FM: 15

1. Identify the plant body 'A' with reasons.

5



'A'

2. Identify the reproductive part of 'B' with reasons.

5



'B'

2. Identify the plant body of 'C' with reasons

5



'C'

Group C ARCHAEGONIATE Internal Assessment FM: 10

Answer the following questions (Any 5)

2x5

1. 'Polyembryony' can be present in

- (a) *Cycas*
- (b) *Sphagnum*
- (c) *Funaria*
- (d) *Pinus*.

2. Which of the following elementary process is responsible for the evolution of megaphyllous leaf?

- (a) Overtopping
- (b) Reduction
- (c) Webbing
- (d) Incurvation

3. Outer most protective layer of sporophyte in *Marchantia* is:

- (a) Calyptra
- (b) Perigynium
- (c) Capsule wall
- (d) Peridermis

4. 'Coralloid roots' present in

- (a) *Cycas*
- (b) *Pinus*.

(c) *Ginkgo*

(d) *Gnetum*

5. In *Funaria*, the sporophytic phase is well-developed, comprising

(a) Foot and capsule

(b) Only capsule

(c) Spore sac

(d) Seta, foot and capsule

6. Father of Indian Bryology is

(a) S.K. Pande

(b) R.S. Chopra

(c) S.R. Kashyap

(d) Ram Udar

7. Synangium is found in

(a) *Psilotum*

(b) *Equisetum*

(c) *Selaginella*

(d) *Pteris*

8. Which of the following plant group shows Heterospory?

(a) Bryophyta

(b) Pteridophyta

(c) Algae

(d) Fungi