

**B.Sc. BOTANY**  
**FIRST SEMESTER**  
**ARCHEGONIATE AND PALAEOBOTANY**  
**BSB-101**  
[USE OMR FOR OBJECTIVE PART]

**SET**  
**A**

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

Marks: 20

( Objective )

1 × 20 = 20

Choose the correct answer from the following:

- Which among the following is also known as bog moss?
  - Riccia*
  - Sphagnum*
  - Marchantia*
  - Funaria*
- The antherozoids of *Funaria* are:
  - Uniflagellate
  - Biflagellate
  - Multiflagellate
  - Do not have flagella
- The thalloid plant body is found in:
  - Marchantia*
  - Sphagnum*
  - Funaria*
  - Salvinia*
- Pteridophytes and Bryophytes differ in having:
  - Spermatozoids
  - Archegonia
  - Separate gametophytes
  - Conducting system
- Pteridophytes are vascular plants that reproduce using:
  - Flowers
  - Spores
  - Seed
  - All of the above
- The most simple and primitive types of stele is:
  - Siphonostele
  - Dictyostele
  - Protostele
  - All of the above
- The protostele in which xylem core is smooth and rounded is:
  - Haplostele
  - Actinostele
  - Plectostele
  - Siphonostele
- The stem of *Selaginella* is:
  - Actinostele
  - Plectostele
  - Haplostele
  - Protostele
- One or two peripheral layers persist for the nourishment of the developing spores. These nourishing cells form:
  - Elaters
  - Tapetum
  - Jacket
  - Spores
- Horsetails is the common name of:
  - Selaginella*
  - Lycopodium*
  - Marsilea*
  - Equisetum*

11. Winged seeds are present in:
  - a. *Cycas*
  - b. *Pinus*
  - c. *Funaria*
  - d. None of these
12. Which of the following genus serves as a link between the gymnosperms and angiosperms?
  - a. *Cycas*
  - b. *Pinus*
  - c. *Gnetum*
  - d. *Ephedra*
13. In *Cycas*, the fern characteristics is:
  - a. Reticulate venation
  - b. Circinate vernation
  - c. Taproot system
  - d. None of these
14. The fossil group of Cycadofilicales have:
  - a. 6 Families
  - b. 2 Families
  - c. 10 Families
  - d. 4 Families
15. Which among the following is an example of fossil fuel?
  - a. Gobar gas
  - b. Coal
  - c. LPG
  - d. None of these
16. Which of the following type of fossil preserve replica of plant in sedimentary rocks?
  - a. Amber
  - b. Caprolites
  - c. Ice
  - d. Cast
17. The fossil Bennettitales first appeared in:
  - a. Permian period
  - b. Triassic period
  - c. Jurassic period
  - d. Permian period
18. The ovule of gymnosperms are:
  - a. Anatropous
  - b. Hemitropous
  - c. Orthotropous
  - d. Circinotropous
19. The total number of seeds produced in *Gnetum* are:
  - a. Three
  - b. Two
  - c. Four
  - d. One
20. Tallest known gymnosperm is:
  - a. *Ginkgo*
  - b. *Cycas*
  - c. *Ephedra*
  - d. *Sequoia*

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**(Descriptive)**

Time : 2 hr. 30 mins.

Marks : 50

[ Answer question no.1 & any four (4) from the rest ]

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|--|--------|
| 1. Write down the economic importance of Bryophytes.   | 10     |
| 2. Write down the morphological and reproductive differences and similarities between Hepaticopsida and Bryopsida group. | 5+5=10 |
| 3. Discuss the heterospory and seed habit in pteridophytes.  | 10     |
| 4. Write short note on:  | 5+5=10 |
| a) Siphonostele in pteridophytes   |        |
| b) Marsileasporocarp   |        |
| 5. Draw and describe the anatomy of <i>Pinus</i> needle.   | 10     |
| 6. Define Fossil. Describe briefly the different types of fossilization with proper example.                             | 2+8=10 |
| 7. Describe briefly the morphological and reproductive features of <i>Rhynia</i> .                                       | 10     |
| 8. Describe briefly the morphological and reproductive features of <i>Gnetum</i> .                                       | 10     |

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