

B. Sc. BOTANY
2ND SEMESTER
HIGHER PLANT DIVERSITY
BSB-201(M)

Duration: 3 Hrs.

{ PART : A (OBJECTIVE) = 20
PART : B (DESCRIPTIVE) = 50 }

Marks: 70

[PART-B:Descriptive]

Duration: 2 Hrs. 40 Mins.

Marks: 50

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

1. Describe the life history of Sphagnum with suitable diagrams. 8+2=10
2. Compare the sporophyte of Riccia, Marchantia and Anthoceros. 10
3. Describe the structure and life history of Equisetum. 8+2=10
4. Write an account on the sporophyte of Marsilea. Give illustration , draw and describe . 8+2=10
5. Elaborate the life cycle of Pinus with suitable diagrams. 8+2=10
6. Compare the morphological and reproductive structures of Gnetum and Ginkgo. 5+5=10
7. Write an account of male gametophytic generation of Cycas with suitable diagrams. 8+2=10
8. Write an account of the genus Rhynia . Give illustrations. 10

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[PART-A : Objective]

Choose the correct answer from the following:

1X20=20

1. The edible seeds are produced in ..
 a. pinusgerardiana
 c. P. insularis
 b. B. P. armandi
 d. none
2. The sporophyte of Gnetum is..
 a. dioecious
 c. Neither of the two
 b. monoecious
 d. Both 1 and 2
3. The spur of *P. roxburghii* is..
 a. monofoliar
 c. trifoliar
 b. bifoliar
 d. pentafoliar
4. The nodal bracts in Gnetum fused together to form a cup like structure called
 a. cupule
 c. cup
 b. parianth
 d. phellogen
5. The sticky substance found in pollen grains are known as..
 a. Pollen tube
 c. Pollen drop
 b. Pollination drop
 d. latex
6. The stem of the male plant in cycas is..
 a. Male strobilus
 c. sympodium
 b. monopodium
 d. none of the above
7. Name of the aquatic species of Riccia..
 a. *R. discalon*
 c. *R. gangetica*
 b. *R. fluitans*
 d. *R. melanospora*
8. Endophytic blue green algal (Nostoc) is found within the bodies of ..
 a. Riccia
 c. Anthoceans
 b. Marchantia
 d. Sphagnum

9. Peristome teeth is found in..
 a. Marchantia
 c. Sphagnum
 b. Pelia
 d. Polytrichum
10. The type genus Rhynia is known from which of the following :
 a. Middle Devonian deposits
 b. Lower Devonian deposits
 c. Jurassic period
 d. Carboniferous period
11. Fan- shaped and bilobed leaves with dichotomous venation is found in
 a. ginkgo
 c. pinus
 b. cycas
 d. gnetum
12. Which of the following genera is included in the family Protolpidodendraceae ?
 a. Baragwanthia
 c. Psilotum
 b. Phylloglossum
 d. Psilophyton
13. In which of the following members of Pteridophytes incipient heterospory is found ?
 a. Lycopodium
 c. Marsilea
 b. Selaginella
 d. Equisetum
14. What type of stele is present in case of the stem of Lycopodium?
 a. protosteles
 c. Amphiphloic siphonostele
 b. Siphonostele
 d. Dictyostele
15. Heterospory and seed habit is shown by which of the following?
 a. Selaginella
 c. Protolpidodendron
 b. Lycopodium
 d. Rhynia
16. The family Miadesmiaceae belongs to which of the following orders?
 a. Selaginellales
 c. Lepidodendrales
 b. Lycopodiales
 d. Filicales
17. The endothecium forms the whole sporogonium tissue in ..
 a. Riccia
 c. Anthoceros
 b. Marchantia
 d. Sphagnum
18. The columella of Anthoceros is made up of ..
 a. 4 celled
 c. 16 celled
 b. 8 celled
 d. 32 celled

19. Which of the following genus is also known as "peat moss"?

- a. Sphagnum
- c. Funaria

- b. Riccia
- d. Polytrichum

20. Archegoniophore is found in.

- a. Riccia
- c. Anthoceros

- b. Marchantia
- d. None of these

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UNIVERSITY OF SCIENCE & TECHNOLOGY, MEGHALAYA



Question Paper CUM Answer Sheet

[PART (A) : OBJECTIVE]

Serial no. of the main
Answer sheet

Course :

Semester : Roll No :

Enrollment No : Course code :

Course Title :

Session : 2016-17 Date :

Instructions / Guidelines

- > The paper contains twenty (20) / ten (10) questions.
- > The student shall write the answer in the box where it is provided.
- > The student shall not overwrite / erase any answer and no mark shall be given for such act.
- > Hand over the question paper cum answer sheet (Objective) within the allotted time (20 minutes / 10 minutes) to the invigilator.

Full Marks	Marks Obtained	Remarks
20		

Scrutinizer's Signature

Examiner's Signature

Invigilator's Signature