

B.Sc. BOTANY
SECOND SEMESTER
Diversity of Seed Plants- Morphology, Anatomy & Systemation
BSB-721

Duration: 2 Hrs. 40 Mins.

Marks: 50

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

[PART-B:Descriptive]

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

1. Describe the life cycle of Pinus with suitable diagrams 8+2=10
2. Elaborate the male and female gametophytes of Cycas with suitable diagrams. 5+5=10
3. Compare the Orchidaceae which Asteraceae 10
4. Describe the characters of Poaceae and its economic importance. 5+5=10
5. What is anomalous secondary growth? Write the characteristics of the secondary growth. 2+8=10
6. What is cell wall? Write the chemical composition of the cell wall. 2+8=10
7. Define inflorescence. Describe the special types of inflorescence with diagrams. 2+8=10
8. Merits and demerits of Bentham and Hooker system of classification. 10

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[PART-A : Objective]

Choose the correct answer from the following:

1×20=20

1. The edible seeds are produced in

- a. *pinusgerardiana* b. *B. P. armandi*
 c. *P. insularis* d. none

2. The sporophyte of Gnetum is

- a. dioecious b. monoecious
 c. Neither of the two d. Both 1 and 2

3. The spur of *P. roxburghii* is

- a. monofoliar b. bifoliar
 c. trifoliar d. pentafoliar

4. The nodal bracts in Gnetum fused together to form a cup like structure called

- a. cupule b. parianth
 c. cup d. phellogen

5. The sticky substance found in pollen grains are known as

- a. Pollen tube b. Pollination drop
 c. Pollen drop d. latex

6. The stem of the male plant in cycas is

- a. Male strobilus b. monopodium
 c. sympodium d. None

7. The anther united the filaments free

- a. Synandrous b. Syngenesious
 c. Epipetalous d. Gamopetalous

8. Parallel leaf venation are generally found in

- a. Dicots b. Monocots
 c. All the above d. None

9. Apical meristem results in

- a. Secondary growth b. Apical growth
c. Primary growth d. None

10. In case, rings of lignin are deposited one above the other is

- a. Annular b. Sclariform
c. Spiral d. Reticulate

11. Plant cell wall is made up of

- a. Cellulose, Hemicelluloses and pectin
b. Cellulose and chitin
c. Cellulose, Hemicelluloses and chitin
d. Cellulose only

12. Activity of normal cambium is absent

- a. Bignonia b. Serjania
c. Amaranthus d. None

13. "K C A" Means

- a. A Hypentodium b. A hypanthium
c. Epipetalous d. None

14. Helianthus belongs to the family of

- a. Asteraceae b. Heliantheceae
c. Annoaceae d. Cucurbitaceae

15. The undifferentiated part of calyx and corolla is called

- a. Cyathium b. Hypentodium
c. Perianth d. None

16. Labellum are found in the family

- a. Assteraceae b. Orchidaceae
c. Lamiaceae d. None

17. " $\% \text{K}_5 \text{C}_5 \text{A}_5 \text{G}_{(2)}$ " in this floral formulae the sign " $\%$ " means?

- a. Actinomorphic flower b. Zygomorphic flower
c. Male flower d. None

18. " $\% \text{K}_5 \text{C}_5 \text{A}_5 \text{G}_{(2)}$ " in this floral formulae, the flower is

- a. Female b. Male
c. Hermophodite d. None

19. " $\frac{0}{0} \text{ } \overline{\text{K}}_5 \text{C}_5 \text{A}_5 \underline{\text{G}}_{(2)}$ " in this floral formulae, ovary is

- a. Inferior
c. Half-inferior

- b. Superior
d. None

20. " $\frac{0}{0} \text{ } \overline{\text{K}}_5 \text{C}_5 \text{A}_5 \underline{\text{G}}_{(2)}$ " in this floral formulae, flower is

- a. Polypetalous
c. Male flower

- b. Gamopetalous
d. None

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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