

**B.Sc. BOTANY**  
**THIRD SEMESTER**  
**ANGIOSPERM TAXONOMY AND DEVELOPMENTAL BIOLOGY**  
**BSB-301 (IDMj)**

**SET**  
**A**

[USE OMR SHEET FOR OBJECTIVE PART]

Duration: 3 hrs.

Full Marks: 70

Time: 30 mins.

( Objective )

Marks: 20

*Choose the correct answer from the following:*

*1 x 20 = 20*

1. A collection, cultivation, preservation and display of a wide range of plants labelled with their botanical names:
  - a. Arboretum
  - b. Herbarium
  - c. Botanical garden
  - d. All of the above
2. "Family" of a species is ended with "suffix":
  - a. -aceae
  - b. -ades
  - c. -ales
  - d. -phyta
3. A leaf with stalk is called:
  - a. Petiolate
  - b. Sessile
  - c. Stalked
  - d. None of these
4. Arrangement of leaf in the stem is known as:
  - a. Venation
  - b. Aestivation
  - c. Phyllotaxy
  - d. All of these
5. Parallel venation is seen in:
  - a. Monocot angiosperm
  - b. Gymnosperm
  - c. Dicot angiosperm
  - d. Pteridophyta
6. Identify the female reproductive organ.
  - a. Sepal
  - b. Stamen
  - c. Petal
  - d. Carpel
7. Union of male and female gamete is called:
  - a. Fertilisation
  - b. Aestivation
  - c. Pollination
  - d. All of these
8. Pollen grains are produced inside:
  - a. Anther
  - b. Stigma
  - c. Ovary
  - d. Connective
9. A group of organisms that can reproduce naturally with one another:
  - a. Species
  - b. Family
  - c. Genus
  - d. Order
10. Name the highest unit of classification.
  - a. Division
  - b. Class
  - c. Kingdom
  - d. Order

11. Who is credited with the development of binomial nomenclature?
  - a. Carl Linnaeus
  - b. Charles Darwin
  - c. Mendel
  - d. Watson and Crick
12. How are scientific names written in binomial nomenclature?
  - a. Genus + common name
  - b. Species genus
  - c. Genus species
  - d. Common name + species
13. Which of the following is an example of a monocot plant?
  - a. Maple
  - b. Garden pea
  - c. Tulip
  - d. Fig
14. Bentham and Hooker system of classification is:
  - a. Phylogenetic system
  - b. Natural system
  - c. Artificial system
  - d. Asexual system
15. The book "*Species Plantarum*" was written by:
  - a. Hutchinson
  - b. Bentham and Hooker
  - c. Bessey
  - d. Linnaeus
16. Scientific name of Brinjal is:
  - a. *Solanum tuberosum*
  - b. *Capsicum annum*
  - c. *Solanum melongena*
  - d. *Solanum torvum*
17. The inflorescence of Poaceae:
  - a. Catkin
  - b. Spikelet's
  - c. Corymb
  - d. Umbel
18. Which plant family is economically most important?
  - a. Poaceae
  - b. Fabaceae
  - c. Rosaceae
  - d. Solanaceae
19. The family Brassicaceae includes vegetables such as:
  - a. Carrots
  - b. Onions
  - c. Broccoli
  - d. Potatoes
20. Who is known as the "father" of Taxonomy?
  - a. Charles Darwin
  - b. John Ray
  - c. Gregor Mendel
  - d. Carl Linnaeus

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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. Define herbarium. Describe the techniques of herbarium.  | 2+8=10   |
| 2. What is pollination? Write differences between cross and self-pollination.   | 2+8=10   |
| 3. What is Double fertilisation? Describe the process of Double fertilisation with suitable diagram.                    | 2+6+2=10 |
| 4. Draw and describe the structure of a typical angiospermic leaf.  | 3+7=10   |
| 5. What is taxonomy? Discuss the salient features and demerits of classification system proposed by Bentham and Hooker. | 2+5+3=10 |
| 6. Write the morphological characteristics and economic importance of the family Poaceae.                               | 5+5=10   |
| 7. What is binomial system of nomenclature? Explain the principles of International Code of Nomenclature (ICN).         | 3+7=10   |
| 8. Describe the morphological characteristics of family Solanaceae, with floral formula and diagram.                    | 6+2+2=10 |

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