

M.Sc. BOTANY
FOURTH SEMESTER
ANGIOSPERM TAXONOMY
MSB-403 C
[USE OMR SHEET FOR OBJECTIVE PART]

**SET
A**

Duration: 3 hrs.

Full Marks: 70

(Objective)

Time: 30 mins.

Marks: 20

Choose the correct answer from the following:

1 × 20 = 20

- Which of the following category are NOT in the IUCN classification of threatened species?
 - Near Threatened
 - Harmful
 - Vulnerable
 - Endangered
- The basic unit of classification:
 - Order
 - Species
 - Class
 - None
- Hotspots are regions of high:
 - Rarity
 - Endangered population
 - Diversity
 - Endemism
- The National Botanical Research Institute (NBRI) is located at:
 - Delhi
 - Gangtok
 - Lucknow
 - Dehradun
- Turmeric belongs to the family:
 - Apiaceae
 - Brassicaceae
 - Zingiberaceae
 - Musaceae
- Binomials with identical genus name and specific epithet are called:
 - Synonym
 - Homonym
 - Basionym
 - Tautonym
- Datura belongs to family:
 - Solanaceae
 - Asteraceae
 - Liliaceae
 - Poaceae
- Largest monocot family is:
 - Zingiberaceae
 - Poaceae
 - Liliaceae
 - Orchidaceae
- Specimen upon which the description and name of a new species is based:
 - Holotype
 - Syntype
 - Isotype
 - Lectotype
- Standard size of herbarium sheet is:
 - 41.25 x 28.75 cms
 - 21.25 x 28.75 cms
 - 31.25 x 28.75 cms
 - 28.25 x 28.75 cms

11. Binomial nomenclature of Apple is:
 a. *Ipomoea batatas* b. *Pyrus communis*
 c. *Malus domestica* d. *Oryza sativa*
12. Gamosepalous condition represents:
 a. Separated petals b. Fused calyx
 c. Fused corolla d. Fused ovary
13. Cotton is obtained from the plants of:
 a. *Boehmeria nivea* b. *O.sativa*
 c. *Bambusa* d. *Gossypium spp.*
14. The most important crop in India among cereals is:
 a. Wheat b. Maize
 c. Rice d. Barley
15. Cloves (*Syzygium aromaticum*) are the aromatic:
 a. Flower buds b. Fruits
 c. Seeds d. Rhizomes
16. How many biodiversity hotspots are located in Northeast India?
 a. 1 b. 2
 c. 3 d. 4
17. According to IUCN *Ilex khasiana* is a:
 a. Critically endangered b. Least concern
 c. Extinct d. Vulnerable
18. Which of the following is not the member of Liliaceae?
 a. Tulip b. *Pisum sativum*
 c. *Lilium* d. *Fritillaria*
19. Which family has (9) +1 arrangement of anthers in the androecium?
 a. Brassicaceae b. Rosaceae
 c. Malvaceae d. Fabaceae
20. Which of the following is the correct floral formula of Solanaceae?
 a. $\text{Br} \oplus \overset{\curvearrowright}{\underset{\curvearrowleft}{\text{K}_5 \text{C}_{15} \text{A}_5 \text{G}_{(2)}}}$ b. $\text{Br} \oplus \overset{\curvearrowright}{\underset{\curvearrowleft}{\text{K}_{(5)} \text{C}_{(5)} \text{A}_5 \text{G}_{(2)}}$
 c. $\text{Br} \oplus \overset{\curvearrowright}{\underset{\curvearrowleft}{\text{K}_5 \text{C}_{(5)} \text{A}_5 \text{G}_{(2)}}$ d. $\text{Br} \oplus \overset{\curvearrowright}{\underset{\curvearrowleft}{\text{K}_5 \text{C}_{(5)} \text{A}_5 \text{G}_{(2)}}$

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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. How many biodiversity hotspots are identified around the world?
Discuss in detail the biodiversity hotspots of India. | 5+5=10 |
| 2. Write in detail the economic importance of family Poaceae. | 4+6=10 |
| 3. Discuss phytogeographical regions of India. | 2+5+3=10 |
| 4. Write brief note on the following:
a) General characters of family Lamiaceae.
b) Floral diagram and floral formula of family Solanaceae. | 5+5=10 |
| 5. Discuss origin of cultivated plants. | 2+8=10 |
| 6. For the Orchidaceae, what is the (a) stem morphology; (b) flower symmetry; (c) Perianth (d) carpel number; and (e) fruit type? | 2×5=10 |
| 7. What is Taxonomy? What are the different methods of plant Identification? | 10 |
| 8. What are the different types of Inflorescences in angiosperms? | 10 |

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