

M.Sc. BOTANY
FOURTH SEMESTER
ANGIOSPERM TAXONOMY
MSB - 403C

(Use Separate Answer Scripts for Objective & Descriptive)

Duration: 3 hrs.

Full Marks : 70

(PART-A: Objective)

Time: 20 min.

Marks : 20

Choose the correct answer from the following:

1X20=20

1. Abyssinian center includes-
 - a. Ethiopia and parts of Somalia
 - b. All the above
 - c. Western China
 - d. Mediterranean center
2. Process of elimination includes in-
 - a. Yoked key
 - b. Bracketed key
 - c. Multi-access key
 - d. None of the above
3. In which key the statements (leads) and the taxa identified from them are arranged in visual groups
 - a. Yoked
 - b. Polyclave
 - c. Bracketed
 - d. Multiple Access
4. One of the largest and earliest independent centers-
 - a. Chinese center
 - b. Abyssinianian center
 - c. Mediterranean center
 - d. None of the above
5. Centers of origin were first identified by Nicolay Ivanovich Vavilov in.
 - a. 1924
 - b. 1920
 - c. 1923
 - d. None of the above
6. According to whom, plant domestication is known to have originated independently-
 - a. Vavilov
 - b. None of the above
 - c. Linnaeus
 - d. Flannery
7. Raster models in GIS are
 - a. Polygon
 - b. Point
 - c. Grid Cells
 - d. Line
8. Vector models are useful for storing data that have discrete boundaries-
 - a. Country borders
 - b. Land parcels and street
 - c. Both a and b
 - d. None of the above

9. Global Positional System (GPS) based on
 - a. Field records and remotely sensed data.
 - b. collection of computer hardware
 - c. Provide precise location on the earth's surface in terms of latitude and longitude coordinates.
 - d. Both a and b
10. Central Asian center includes

<ol style="list-style-type: none"> a. Ethiopia and parts of Somalia c. North-west India, Afghanistan, Uzbekistan, and western China 	<ol style="list-style-type: none"> b. Borders of Mediterranean Sea. d. All of the above
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11. Wet evergreen forests are found in the -
 - a. Andhra Pradesh and Karnataka coast
 - b. south along the Western Ghats and the Nicobar and Andaman Islands and all along the north-eastern region
 - c. Western Ghats
 - d. Sub-Himalayan light alluvial Semi-evergreen
12. Subalpine forests extend from

<ol style="list-style-type: none"> a. Lahul, Kinnaur, Sikkim, c. Near the Myanmar border. 	<ol style="list-style-type: none"> b. Western Himalayas d. Kashmir to Arunachal Pradesh
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13. The author of Flora of Delhi is-

<ol style="list-style-type: none"> a. K.M. Matthew c. Maheswari 	<ol style="list-style-type: none"> b. J.S. Gamble and Fischer. d. None of the above
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14. Literature that provides only the list of plants -

<ol style="list-style-type: none"> a. Catalog c. Monograph 	<ol style="list-style-type: none"> b. Flora d. Journal
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15. The family in which most of the genera are used as medicinal plants

<ol style="list-style-type: none"> a. Lamiaceae c. Cannaceae 	<ol style="list-style-type: none"> b. Poaceae d. Arecacea
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16. Which family is closely related to Convolvulaceae and Scrophulariaceae

<ol style="list-style-type: none"> a. Solanaceae c. Asteraceae 	<ol style="list-style-type: none"> b. Poaceae d. Lamiaceae
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17. The northern wet tropical forests occur in

<ol style="list-style-type: none"> a. Assam, West Bengal, and Odisha c. Upper Assam, northern Bengal, and Arunachal Pradesh. 	<ol style="list-style-type: none"> b. Tamil Nadu, Arunachal Pradesh, Assam d. All the above
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18. Endemism may be due to
- a. Poor adaptability of a species in a wide range of ecology and
 - b. Presence of some geographical barrier the species might have comparatively been young and not have time to spread.
 - c. Failure of dispersal of reproductive organs
 - d. All of the above
19. Many cultivated plants of this genus are important for edible fruits, called bananas and the plantains-
- a. Ravenala
 - b. Musa
 - c. Strelitzia
 - d. All of the above
20. Aloe, Smilax, Dracaena and Gloriosu belongs to
- a. Musaceae
 - b. Orchidaceae
 - c. Liliaceae
 - d. Solanaceae

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(PART-B: Descriptive)

Time : 2 hrs. 40 min.

Marks : 50

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

1. Write about the origin of cultivated species and discuss Vavilov's center of origin of cultivated species. 3+7=10
2. Write the salient features and medicinal importance of the family Lamiaceae 7+3=10
3. Write short notes on- 5+5=10
 - a. Punched card keys and multi-access keys
 - b. Monograph and checklists.
4. Write the distinguishing characters and economic importance of the family Zingiberaceae. 7+3=10
5. Write the economic importance and phylogeny of- 5+5=10
 - a. Magnoliaceae
 - b. Orchidaceae
6. Write short notes on 5+5=10
 - a. Exotic species and Invasive species
 - b. RET Plants and phytogeographic regions (outline only)
7. Write the importance of GPS and GIS in Biodiversity assessment and conservation in North East India. 10
8. What do you understand by Endemism? Discuss the Western Ghat and Indo-Himalayan Region 3+7=10

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