

**M.Sc. 3rd Semester Examination-2022-23**

**BOTANY**

**Course ID : 31354      Course Code : BOT/304EA (TH)**

**Course Title : Taxonomy of Angiosperms and  
Biosystematics**

*Time : 2 Hours*

*Full Marks : 30*

*The figures in the right hand margin indicate full marks.*

*Candidates are required to give their answers in their  
own words as far as practicable.*

**1. Answer *any four* of the following :** 1×4=4

(a) Name one monotypic family of Trochodendrales.

(b) Name an endemic insectivorous plant of India.

(c) What is polytopy ?

(d) Write the name of the component present in  
Caryophyllales instead of anthocyanin ?

(e) Name one book written by Arther Cronquist and  
mention its publication year.

*(Turn Over)*

(f) Name two primitive families of Dilleniidae which are the structural link to Magnoliidae.

(g) What is meant by temporal isolation?

(h) Mention the types of inflorescence in Arecidae?

2. Answer **any two** of the following :  $5 \times 2 = 10$

(a) Write a brief note on the evolutionary trends in Alismatidae. 5

(b) Mention the centres of origin of cultivated plants in the World following Vavilov. 5

(c) Characterize the subclass Zingiberidae. Write the name of orders included in it. 4+1

(d) Comment on the parasitic angiosperms occurring in India. 5

3. Answer **any two** of the following :  $8 \times 2 = 16$

(a) State the circumscription and phylogeny of Hammamelidae after Cronquist system of classification. 5+3

(b) Distinguish between gradual and abrupt speciation. Describe different mechanisms involved in gradual and abrupt speciation. 2+6

(c) Characterize Asteridae. Mention the affinity and interrelationship of this group. 4+2+2

(d) What are insectivorous plants? Give an account of modes of nutrition found in insectivorous plants. 2+6