

**2020**

**BOTANY — HONOURS**

**Paper : CC-7**

**Full Marks : 50**

*The figures in the margin indicate full marks.*

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

1. Answer **any five** of the following :

- |   |      |
|---|------|
| (a) Define Holotype.  | 2    |
| (b) Define taxon and nothotaxon.                                  | 1+1  |
| (c) Name the largest herbarium in the World. Mention its acronym. | 1+1  |
| (d) Distinguish between phenetics and cladistics.                 | 2    |
| (e) What do you mean by OTU? Give one example.                    | 1½+½ |
| (f) What is virtual herbarium?                                    | 2    |
| (g) What is basionym? Cite one example.                           | 1+1  |

2. Write notes on **any two** of the following :

5×2

- (a) Rules of Priority.
- (b) Palynology in relation to taxonomy.
- (c) Conditions of valid publications.
- (d) Role of herbaria in teaching and research.

3. Answer **any three** of the following :

- (a) What do you mean by natural system of classification? Give an outline of Bentham and Hooker's System of Classification (1862-1883) up to Series. Mention two merits and two demerits of this system. 1+5+(2+2)
- (b) Briefly describe the floral morphology of Apiaceae (Umbelliferae) with floral diagram. State the primitive features of the family Magnoliaceae. Give one example of each of these two families. 4+4+1+1
- (c) Distinguish between Musaceae, Cannaceae and Zingiberaceae based on floral characters. Name any one economically important plant each from Musaceae and Zingiberaceae. 8+(1+1)
- (d) Compare the androecium characters of Asteraceae, Euphorbiaceae and Cucurbitaceae. Name one economically important plant of each family. 7+3

**Please Turn Over**

(e) Answer *any two* of the following :

- |   |       |
|---|-------|
| (i) Comment on the Biosystematics and the Encyclopedic phase of taxonomy.       | 2½+2½ |
| (ii) What is neotype? Distinguish it from isotype.                              | 2½+2½ |
| (iii) Role of secondary metabolites in angiosperm taxonomy citing two examples. | 2½+2½ |
| (iv) State the Principles of ICN.   | 5     |
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