

**NEW**

**Part-III 3-Tier**

**2018**

**BOTANY**

**(Honours)**

**PAPER—VII**

**(PRACTICAL)**

*Full Marks : 100*

*Time : 6 Hours*

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

**[Instruction to the Examiners]**

1. For specimen 'A' each batch of candidates two specimens with flowers should be selected from the angiospermic families as prescribed in the syllabus. Alternate specimens should be given to the candidates of the same batch.
2. (a) For specimen 'B' batch of candidates crude drug power [Powder of *Alstonia* sp. bark, *Adhatoda* sp. leaf, *Zingiber* sp. rhizome and *strychnos* seed] should be supplied alternately.  
(b) For specimen 'C' chemical test of Tannis and alkaloids, the following specimen should be given alternately batchwise [powder of *Terminalia chebula* for Tannis; powder of leaf / whole plant of *Catharanthus roseus* for alkaloid]

*(Turn Over)*

3. (a) For specimen 'D' any two of the following specimens should be selected and allotted to the candidates of the same batch.

Root : *Vanda sp.* ; *Tinospora sp.*

Stem : *Bignonia sp.* ; *Tecoma sp.* *Boerhaavia sp.*  
*Dracaena sp.*

Leaf : *Bambusa sp.* and *Nerium sp.*

- (b) For specimen 'E' wood anatomy the following specimens should be given alternately batchwise.

Wood block of *Tectona grandis*, *Mangifera indica* and *Azadirachta indica*.

4. (a) For sample space 'F' [Question No. 4(a)] site of rich ecological diversity should be selected for the quadratic study.

- (b) For specimen 'G' Ecological identification any one of the following specimen should be selected for each batch.

Root of *Eichhornia crassipes* and *peperomia pellucida* leaf.

5. (a) For specimen 'H', 'I', 'J' any three angiospermic following twigs (other than those selectdd for Question No. 1) one each from different families as per theoretical syllabus should be selected. out of three specimens one must be from monocotyledons.

- (b) For the palaeobotanical identification the following specimens ('K' and 'L') should be used batchwise alternately.

*Lyginoptens* T.S., *Calamites* stem T.S. *Lepidocarpon* and *Vertebrania*.

- (c) For the Identification of Gymnosperms, the following specimens ('M' and 'N') should be selected batchwise alternately; L.S. of Gnetum ovule, Female cone of *Pinus sp.*, T.S. / L.S. of Male cone of *Pinus sp.* Megasporophyll of *cycas sp.* and RLS of *Pinus* stem.
- (d) For specimen 'O' Pathological identification, the pollens of the following plants to be given : Pollens of *Hibicus sp* and *Tridax sp.* [Pollens collected from other members of Family Malvaceae and Asteraceae can also be used for the said purpose]
6. (a) For Herbarium sheets submission, atleast 20 Dicots and 5 monocots specimens are to be submitted as per the standard guidelines of the preparation of Herbarium sheets. The quality of the materials should to given more weightage. The arrangement of the sheets should follow Bentham and Hooker's system of classification. Unidentified herbarium specimens should not be considered for Evaluation.
- (b) Laboratory Note Books should be assessed considering the regular endorsement of Teachers in practical record books. The candidates should be given more weightage having regular endorsement, neatness and other desirable qualities.
- (c) Field Records including tour diary must be endorsed by the concerned teachers with a certificate for the candidates who attended the tour.
- (d) Permanent slides as prepared during practical classes should be submitted.
7. Viva-Voce : Examiners should ask different question covering the entire syllabus related to practical and theoretical aspects.

**[ Special Notes ]**

1. Marks should be sent in the printed award sheets supplied from the University.
  2. Evaluation should always show part markings and should be done jointly by all the examiners.
  3. All loose-sheets should bear signatures of all the examiners.
  4. A list of (key to) specimens allotted to each batch should accompany the answer-scripts (batch wise). The list should bear full signatures and full names (in block letters) along with the mailing address and phone numbers of all the examiners.
  5. Marks and answer-script packets along with remuneration bills (in separate envelope) should be sent to Head Examiner.
  6. All sorts of examined materials should be sent to the Head Examiner after the commencement of the last schedule of the examination from the respective centres.
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