

**NEW**  
**Part-III 3-Tier**  
**2017**  
**BOTANY**  
**(Honours)**  
**PAPER—VIII**  
**(PRACTICAL)**

Full Marks : 100

Time : 6 Hours

*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.*

*Illustrate the answers wherever necessary.*

1. (a) Perform two physiological experiments as indicated in (1a, 1b) in the card to be drawn from a lot. Write in brief the experimental procedures, results and inferences. 15+5

*[[for a : Requisition—2; Setup—2; procedure—5;*

*Result—4; inference—2)*

*(for 1b : Requisition—1; setup—1; procedure—1;*

*Result & Comments—2)]*

2. (a) Perform the qualitative / quantitative (Sample : M), tests as indicated in the card drawn from a lot. 10

*[[Requisition—2; Procedure—3;*

*Result—3; Inference—2;]*

*(Turn Over)*

3. Calculate the segregation ratio of the sample 'O', determine the "Goodness of fit" from the specimen supplied.

8

*[[Calculation—6; Conclusion—2;]*

*[[Requ*

4. Make a suitable stained squash preparation of the pretreated and fixed root tip material 'N'. Determine the mitotic index of the specimen supplied. Draw, label and count the chromosome from a scattered metaphase plate.

15

*[Squash preparation— 3; Calculation (mitotic index)— 5; preparation of metaphase plate— 3; Drawing and labelling—*

*3;*

*Chromosome count— 1;]*

5. Demonstrate the plant breeding experiment as mentioned in the card to be drawn from a lot. Write the experimental procedure in brief.

3+3

*[Demonstration— 3; Procedure— 3; ]*

6. Submit the bound and duly signed of your dissertation work (maximum 40 pages) prepared by you and present the same (3—5 min).

15

*[Submission— 6; Presentation— 4; Discussion on presentation— 5; ]*

7. Identify the slides 'P', 'Q' and 'R' with necessary comments.

3×2

*[Identification— 1; Comment— 1; ]*

8. Laboratory note book.

10

9. Viva-Voce.

10