

Seat No. : \_\_\_\_\_

# JF-102

January-2021

B.Sc., Sem.-III

202 : Botany

(New Course)

Time : 2 Hours]

[Max. Marks : 50

- Instructions :** (1) All Questions in **Section – I** carry equal marks.  
(2) Attempt any **THREE** questions in **Section – I**.  
(3) Question – 9 in **Section – II** is **COMPULSORY**.

## Section – I

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|----|--|---|
| 1. | (A) Describe secondary growth in Sunflower stem.                       | 7 |
|    | (B) Write a note on simple tissue.                                     | 7 |
| 2. | (A) Write classification of Meristem.                                  | 7 |
|    | (B) Describe primary structure of Maize root.                          | 7 |
| 3. | (A) Describe external and internal ecological adaptations in Nymphaea. | 7 |
|    | (B) Write a note on social composition.                                | 7 |
| 4. | (A) Write a note on soil profile.                                      | 7 |
|    | (B) Describe external and internal ecological adaptations in Nerium.   | 7 |
| 5. | (A) Describe polygonum type embryo sac.                                | 7 |
|    | (B) Write a note on Microsporangium and Microsporogenesis.             | 7 |
| 6. | (A) Describe types of Ovules.  | 7 |
|    | (B) Write a note on pollination in Salvia.                             | 7 |
| 7. | (A) Describe ultra structure of Cell wall.                             | 7 |
|    | (B) Describe Ribosomes.  | 7 |
| 8. | (A) Write a note on Lysosome.  | 7 |
|    | (B) Describe Endoplasmic reticulum.                                    | 7 |

## Section – II

9. Answer in short : (any **eight**)

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- (i) Define Cambium.
  - (ii) Which type of vascular bundle is found in maize stem ?
  - (iii) Which type of vascular bundle is found in Sunflower root ?
  - (iv) What is Periderm ?
  - (v) Define soil.
  - (vi) Give two steps of soil conservation.
  - (vii) What is remote sensing ?
  - (viii) What is biological clock ?
  - (ix) What is megasporogenesis ?
  - (x) Define double fertilization.
  - (xi) Define Pollination.
  - (xii) Give types of bisporic embryo sac.
  - (xiii) Give types of plasma membrane models.
  - (xiv) Give two functions of Dictyosome.
  - (xv) Give two functions of Nucleus.
  - (xvi) Give two functions of cell wall.
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