UG Odd Semester Examination, 2022

EDUCATION B.Sc. B.Ed

(7th Semester)

Course No.: BSBH-703

(Plants Breeding, Molecular Biology & Biotechnology)

Full Marks: 50

Pass Marks: 20

Time: 2 hours

The figures in the right margin indicate full marks for the question.
Answer the following five (5) questions

1. (a) Write note on : Vegetative reproduction for plant propagation. 3

   (b) Describe polyploidy breeding. 4

   (c) What is heterosis? 3

Or

2. (a) Write note on : Inbreeding Depression. 3

   (b) Describe mutation as method of crop improvement. 4

   (c) Explain role of apomixis in generating and fixing genotypic variation. 3

3. (a) Describe gene organization in prokaryotes. 5

   (b) Write note on : RNA splicing 5

Or

4. (a) Describe Lac Operon. 5

   (b) Write note on : m-RNA Stability. 5

5. (a) Explain Genomic DNA library. 5

   (b) Write note on : Restriction-Endonuclease 5

Or

6. (a) Describe Restriction Fragment Length Polymorphism (RELP). 5

   (b) Write note on : Prokaryotic Cloning Vectors. 5

7. (a) Describe Selectable Marker Genes. 5

   (b) Write note on : Somatic Hybridization 5

Or

8. (a) Describe anther culture. 5

   (b) Write note on : Clonal Propagation 5

9. (a) Explain Transgenic plants and their importance. 5

   (b) Write note on : Biogas Production 5

Or

10. (a) Describe process of Agrobacterism mediated genetic transformation. 5

    (b) Write note on : Achievements of Crop Biotechnology. 5

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