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**BOH 552**

**IV Semester M.Sc. Degree Examination, September/October 2022**  
**(CBCS)**  
**BOTANY**  
**Plant Biotechnology**

Time : 3 Hours

Max. Marks : 70

- I. Answer **any three** of the following. **Each** answer **not** exceeding **5** pages. **(3×10=30)**
- 1) Write an account of blotting techniques.
  - 2) Explain the steps involved in gene cloning.
  - 3) Give an account of molecular markers.
  - 4) Write an account of vectorless gene transfer.
  - 5) Explain the applications of transgenic plants in crop improvement.
- II. Write notes on **any six** of the following. **Each** answer **not** exceeding **3** pages. **(6×5=30)**
- 6) Autoradiography.
  - 7) Gel electrophoresis.
  - 8) Identification of cloned genes.
  - 9) Gene testing.
  - 10) Advantages and disadvantages of vector mediated gene transfer.
  - 11) Edible vaccines.
  - 12) Single cell proteins.
  - 13) Herbicide resistance.
- III. Write short notes on **any five** of the following. **Each** answer **not** exceeding **1** page. **(5×2=10)**
- 14) PAGE
  - 15) RT-PCR
  - 16) Ligases
  - 17) FISH
  - 18) Ti-plasmid
  - 19) Gemini virus
  - 20) Golden rice.
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