QP CODE	2028000504

Reg. No | | | | | | | | | | |

DMI-ST. EUGENE UNIVERSITY

ZAMBIA

DEGREE EXAMINATION – DECEMBER 2024

Semester: II **800BO205 BOTANY II**

Time: 3:00 Hours **Max. Marks: 100**

Answer any FIVE Questions (5 x 20 = 100 Marks)

1. a) Compare and contrast vegetative propagation and sexual reproduction in angiosperms. **(10 Marks)**

   b) Explain the process of micro propagation and its applications. **(10 Marks)**

2. a) Analyze the structure and functions of a typical dicotyledonous leaf, providing detailed explanations and supporting diagrams. **(10 Marks)**

   b) With an aid of a diagram discuss the Primary structure of a monocotyledonous root -Maize root. **(10 Marks)**

3. a) Explain the significance of photosynthesis and its light and dark reactions. **(10 Marks)**

   b) Explain the different modes of nutrition in plants (autotrophic, heterotrophic, saprophytic, parasitic, and insectivorous). **(10 Marks)**

4. a) Explain the principles of recombinant DNA technology. **(10 Marks)**

   b) Describe the process of Gene transfer in plants. **(10 Marks)**

5. a) Discuss the significance of improved varieties and bio-fertilizers in agriculture. **(10 Marks)**

   b) Describe common crop diseases and their control methods. **(10 Marks)**

6. a) Describe the types of pollination and their significance in angiosperms.**(10 Marks)**

   b) Write a note on Artificial Method of Vegetative Propagation.**(5 Marks)**

   c) Write an account on factors necessary for seed germination. **(5 Marks)**

7. a) Explain the mechanism of the Krebs cycle. **(10 Marks)**

   b) Elucidate plant growth and its phases. **(10 Marks)**