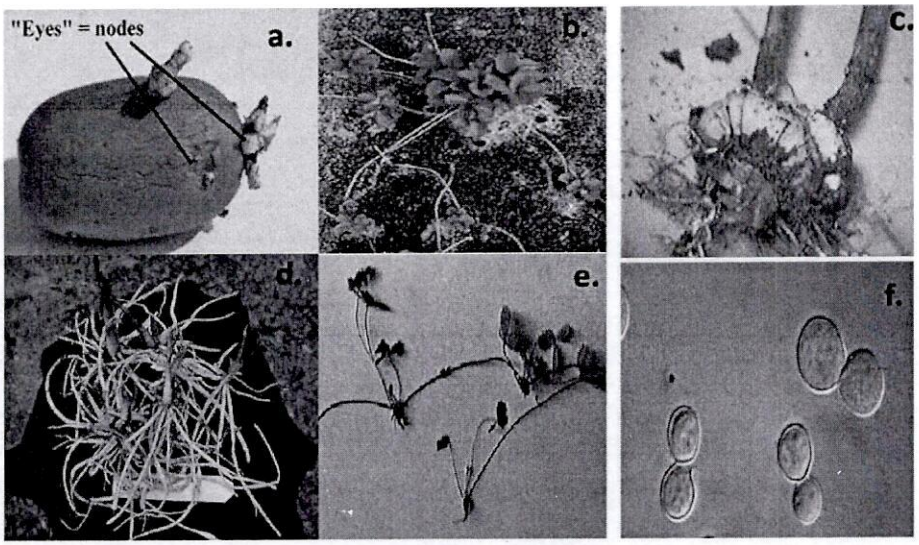
BINDURA UNIVERSITY OF SCIENCE EDUCATION
SCIENCE AND MATHEMATICS EDUCATION DEPARTMENT
DipScEd
DB003 PLANT SCIENCE (1)

EXAMINATION
2 HOURS (100 MARKS)

INSTRUCTIONS
Answer FOUR questions. You MUST answer QUESTION 1 (Section A) and any THREE questions from Section B. Each question carries 25 MARKS. Where a question contains subdivisions, the mark value of each subdivision is given in brackets. Illustrate your answers, where appropriate, with large, clearly labelled diagrams. You should not spend more than thirty minutes on each question.

SECTION A (COMPULSORY)

1. Below are specimens of plant parts that are used for asexual reproduction.



a. Identify the type of vegetative propagation shown in a, b, c, d and e and briefly write notes about each of these methods [15]
b. Briefly discuss how this type of reproduction is different from sexual reproduction [10]

SECTION B

2. a. Outline the basic characteristics of each of the four basic plant groups and give an example of each. [20]
b. Asexual and sexual reproduction occur in plants. Describe the life cycle of a named Bryophyte. [5]

3. a. Relate the structure of the root to its function [12]
b. Compare and contrast a fibrous root system and a taproot system [8]
c. Why might a taproot system be an advantage to some plants while a fibrous root system is an advantage to others? [5]

4. Discuss the different characteristics that plants evolved to be able to reproduce on land? [25]

5. a. Define seed dormancy and describe the types of seed dormancy [15]
b. Describe the conditions necessary for seed germination [10]

6. a. Define pollination and explain the different types of pollination [12]
b. Describe the adaptations of flowers to insect and to wind pollination [13]

END OF EXAMINATION QUESTION PAPER