BINDURA UNIVERSITY OF SCIENCE EDUCATION

BACHELOR OF SCIENCE DEGREE

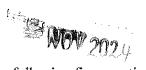
NR 120 (1)

DEPARTMENT OF NATURAL RESOURCES BSc PART I: Examination

PRINCIPLES OF ECOLOGY AND BIODIVERSITY

2 HOURS (70 MARKS)

INSTRUCTIONS



Answer THREE questions out of the following five questions. You must answer question One from SECTION A and any Two questions from SECTION B.

SECTION A (COMPULSORY)

i.

1. (a) Describe the key characteristics of the following biomes:

Grassland [5 MARKS]

ii. Desert [5 MARKS]

(b) Discuss the possible effects of climate change on biological diversity. [20 MARKS]

SECTION B

2. Distinguish between equilibrium and disequilibrium paradigms of plant succession. [20 MARKS]

3. Describe how you would estimate woody and herbaceous species diversity in an indigenous woodland. [20 MARKS]

4. (a) Use a clearly labelled diagram to illustrate the Nitrogen cycle. [5 MARKS]

(b) Discuss the impacts of human activities on the Nitrogen cycle. [15 MARKS]

5. Write notes on the following terms:

(a) Niche [5 MARKS]

(b) Symbiosis [5 MARKS]

(c) Intraspecific competition [5 MARKS]

(d) Gause's competitive exclusion principle [5 MARKS]

END OF PAPER