

BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF SCIENCE AND ENGINEERING

NOV 2024

SUSTAINABLE DEVELOPMENT DEPARTMENT

BACHELOR OF SCIENCE HONOURS DEGREE IN DEVELOPMENT STUDIES

DG110: ENVIROMENTAL SYSTEMS

EXAMINATION

TIME: 3 HOURS

**ANSWER FOUR QUESTIONS. CHOOSE ONE QUESTION FROM EACH SECTION.
USE ILLUSTRATIONS AND DIAGRAMS WHERE RELEVANT. MARKS FOR EACH
QUESTION ARE INDICATED IN BRACKETS [].**

SECTION A: LITHOSOHERIC SYSTEMS

1. Crustal systems have more constrains than developmental opportunities.
Discuss. [25]
2. (a) Explain the formation of the three major types of rocks. [10]
(b) Outline the main factors which affect the weathering process. [15]

SECTION B: ATMOSPHERIC SYSTEMS

3. Assess the human impacts on systems of the atmosphere. [25]
4. (a) Explain the three main types of scattering. [15]
(b) Describe and explain any atmospheric hazard. [10]

SECTION C: FLUVIAL-HYDRO SYSTEMS

5. Earth systems are open systems. Discuss [25]
6. (a) Explain the following term as they are used in hydrology

- [i] Eutrophication [5]
- [ii] Interception loss [5]
- [iii] Through flow [5]
- (b) Describe and explain any three drainage patterns. [10]

SECTION D: BIOSPHERE SYSTEMS

- 7. Describe and explain the different forms of relationships within the ecosystem. [25]
- 8. Examine the effects of climate change on different processes of the biosphere. [25]