

**BINDURA UNIVERSITY OF SCIENCE EDUCATION**

**FACULTY OF SCIENCE**

**GEOGRAPHY DEPARTMENT**

**AUG 2023**

**BACHELOR OF SCIENCE HONOURS DEGREE IN EDUCATION (HBScEd)/  
BACHELOR OF SCIENCE DEGREE IN EDUCATION (BScEd)**

**GG311: CLIMATOLOGY**

**EXAMINATION**

**TIME: 2 ¼ HOURS**

**ANSWER ANY THREE QUESTIONS. USE ILLUSTRATIONS AND  
DIAGRAMS WHERE RELEVANT. MARKS FOR EACH QUESTION ARE  
INDICATED IN BRACKETS [ ].**

1. With the aid of diagrams, explain the global distribution of pressure systems. [25]
2. Briefly explain the following concepts as applied in climatology:
  - (i) geostrophic wind, [5]
  - (ii) coriolis force, [5]
  - (iii) pressure gradient force, [5]
  - (iv) sea breeze [5]
  - (v) anabatic wind. [5]
3. Using diagrams of tri-cellular models, explain the global general circulation of air. [25]
4. Briefly explain any five factors that affect air temperature. [25]
5. Explain the phenomena resulting from condensation of water vapour at or near the ground. [25]