BINDURA UNIVERSITY OF SCIENCE EDUCATION

FACULTY OF SCIENCE AND ENGINEERING

DEPARTMENT: DISASTER RISK REDUCTION

PROGRAMME: BACHELOR OF SCIENCE HONOURS DEGREE IN DISASTER MANAGEMENT SCIENCES

COURSE CODE DMG228: INTRODUCTION TO REMOTE SENSING

DURATION: 3 HRS TOTAL MARKS: 75

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

1. Using relevant examples, describe the uses of synthetic aperture radar data in mapping hydrological disasters. [25]

2. With specific reference to data quality, explain the importance of data resolution in optical images for disaster management. [25]

3. Explain the five major challenges associated with passive optical satellite data for applications in flood mapping. [25]

4. With particular reference to an organization of your choice, outline the five major challenges associated with the adoption and application of satellite data for disaster response actions. [25]

5. Describe the five benefits derived from the adoption and application of unmanned aerial vehicles (UAVs) in the management of COVID-19 disasters in a country of your choice. [25]

END OF EXAMINATION