

BINDURA UNIVERSITY OF SCIENCE EDUCATION

DEPARTMENT OF CURRICULUM AND EDUCATIONAL MANAGEMENT STUDIES

DIPLOMA IN SCIENCE EDUCATION IN MATHEMATICS AND GEOGRAPHY

(DipScEdMG)

COURSE CODE: DG 004 (2). **COURSE NARRATION:** GEOGRAPHIC INFORMATION
SYSTEMS AND REMOTE SENSING

DURATION: 3 HOURS

TOTAL MARKS: 75

JUN 2024

Instructions to candidates

- Answer any **three** questions.
 - Each question carries 25 marks
 - Use examples, illustrations and diagrams where relevant
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1. Discuss the benefits of using spatial data from multiple sources. [25]
2. a. Explain any **five** elements of visual image interpretation [10]
b. Distinguish between a raster data model and a vector data model [15]
3. a. Describe fully how extinction of Electromagnetic Radiation (EMR) shown in Figure 1 occurs. [10]

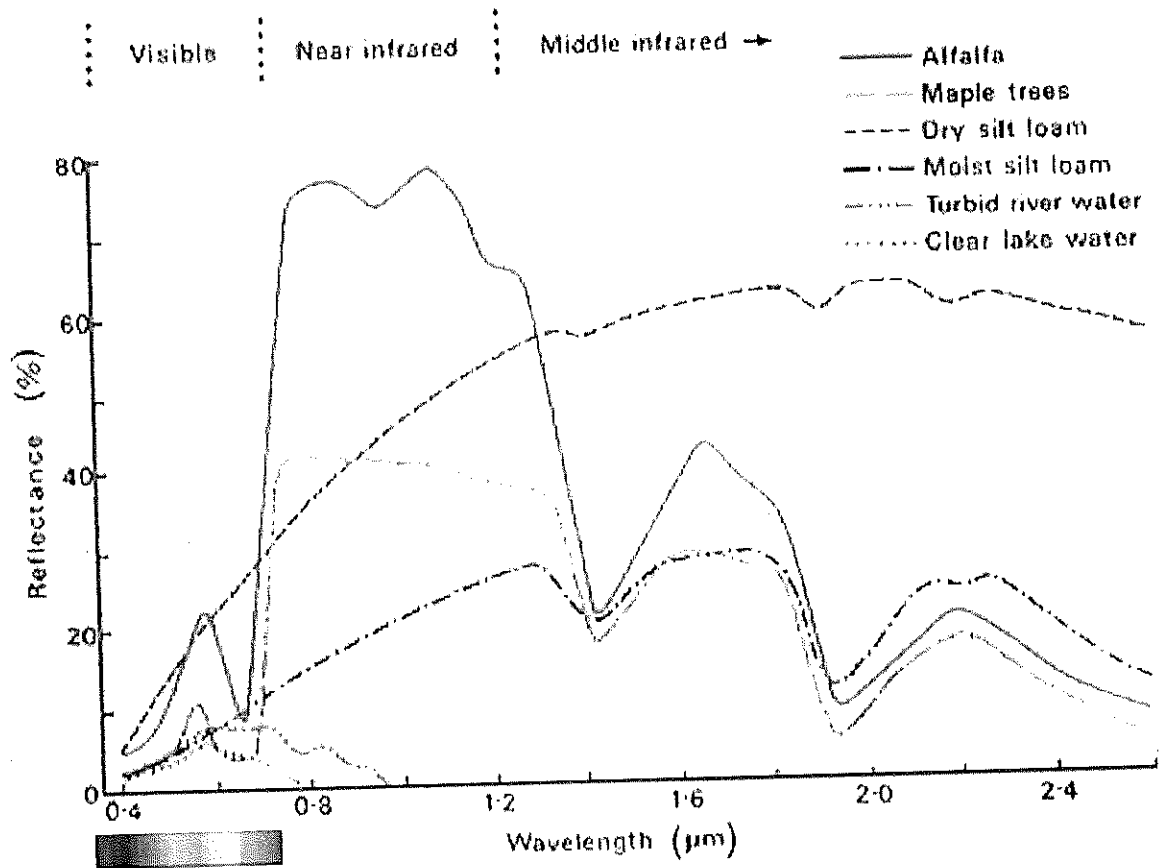


Figure 2: Relationship between Spectral Reflectance and Wavelengths.

4. a. Study Figure 3 and use the region Quadtree to calculate the sizes of the following features

- i. Grassland
- ii. Forest
- iii. Water

[4]
[3]
[3]