

MACHAKOS UNIVERSITY

UNIVERSITY EXAMINATIONS 2019/2020

**SUPPLEMENTARY EXAMINATION FOR THE DEGREE OF BACHELOR OF EDUCATION AND
BACHELOR OF ARTS**

AGE 400 REMOTE SENSING AND RESOURCE MANAGEMENT

DATE.....

TIME.....

INSTRUCTIONS:

ANSWER QUESTION ONE AND OTHER TWO QUESTIONS.

- 1 a). Differentiate between the following concepts:
 - i. Scattering and reflection (4Mks)
 - ii. Active and passive remote sensing (4Mks)
 - iii. Spatial and radiometric resolutions (4Mks)
- b). Explain the major steps of transforming a raw digital imagery into classified image (10Mks)
- c). What is the relevance of Geographical Information Systems in spatial planning (8Mks)
- 2). Explain how multi-date temporal resolution in remote sensing process may be used to monitor the expansion of Nairobi City (20Mks).
- 3). By use of examples, discuss the advantages of Radio Detection and Ranging (Radar) microwave remote sensing systems over visible wavelength bands (20Mks)
- 4). Illustrate the differences in data capture between air photography and satellite remote sensing mechanisms (20Mks)
- 5). Discuss the relevance of satellite remote sensing in environmental conservation and resource management (20Mks)