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KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2023/2024 ACADEMIC YEAR
THIRD YEAR, FIRST SEMESTER EXAMINATION
FOR THE DEGREE OF BACHELOR OF EDUCATION(ARTS)
KGE 2303 REMOTE SENSING

Date:14th August 2024
Time:2.30pm-4.30pm

INSTRUCTIONS TO CANDIDATES:
Sketch maps and diagrams should be used whenever they serve to illustrate an answer
ANSWER **QUESTION ONE (COMPULSORY)** AND ANY OTHER **TWO QUESTIONS**

QUESTION ONE (30 MARKS)

a) Establishing regional ground receiving stations in Kenya is very important. Discuss. (8marks)

b) Using appropriate illustrations, describe the visible spectrum in remote sensing. (10 marks)

c) How remote sensing can be used in the following studies in Kenya.
   i) Vegetation studies. (6 marks)
   ii) Wildlife studies. (6 marks)

QUESTION TWO (20 MARKS)

a) Describe the process of energy (radiation) interaction with the atmosphere during the remote sensing process. (10 marks)

b) Trace the major developments in the history of remote sensing. (10 marks)

QUESTION THREE (20 MARKS)

a) Discuss the process of energy (radiation) interaction with the target during the remote sensing process. (10 marks)

b) Explain how remote sensing can be used in the current issues of development in Kenya in terms of
   i) Military operations. (5 marks)
   ii) Civil engineering . (5 marks)

QUESTION FOUR (20 MARKS)

a) Using appropriate illustration, discuss how remote sensing can be used for social economic development in Nairobi Kenya. (10 marks)

b) Describe how remote sensing can be used to sort out/manage the following upcoming global challenges:

i) The recent floods. (6 marks)

ii) Forest fires. (4 marks)

QUESTION FIVE (20 MARKS)

a) Assuming that you are called upon to give an advice on data collection in Kiriri Women's University of Science and Technonolgy for development purposes. Give reason(s) why you would consider using remote sensing that uses electromagnetic spectrum sensor systems over other systems in terms of

i) Records. (4 marks)

ii) Improved vantage point. (4 marks)

iii) Increased Spatial Resolution and Geometric Fidelity. (4 marks)

b) Describe the process of remote sensing with sensor during the remote sensing process . (8 marks)