(*University of Choice*)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

MAIN CAMPUS

UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR

FOURTH YEAR FIRST SEMESTER EXAMINATIONS

MAIN EXAMINATION

FOR THE DEGREE
OF
BACHELOR OF SCIENCE IN GEOSPATIAL INFORMATION SCIENCE

COURSE CODE: DPG 405

COURSE TITLE: GEOGRAPHIC INFORMATION SYSTEMS AND
SOCIAL NATIONAL/SPATIAL DATA INFRASTRUCTURE

DATE: 18/12/2023   TIME: 12-2PM

INSTRUCTIONS TO CANDIDATES

This Paper contains Four (4) Questions

Question One (1) is Compulsory (Total = 30 Marks)
Attempt any other Two (2) Questions (Total = 40 Marks) from the remaining Questions
Be brief and to the point

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating
This Paper Consists of 2 Printed Pages. Please Turn Over.

SECTION I: COMPULSORY (30 MARKS)

QUESTION ONE

a). Explain the following terms as used in GIS

      i). Spatial relationships   [2 Marks]

      ii). Open data   [2 Marks]

      iii). Geoportal   [2 Marks]

      iv). Geospatial interoperability   [2 Marks]

      v). Metadata   [2 Marks]

b). What is Spatial data infrastructure?   [5 Marks]

c). What are the driving factors towards the implementation of SDIs?   [10 Marks]

d). What is a Web service?   [5 Marks]

SECTION II: ATTEMPT ANY OTHER TWO (2) QUESTIONS (40 MARKS)

QUESTION TWO

  a). Explain the importance of Spatial Data Infrastructures?   [8 Marks]

  b). What are the components of a Spatial Data Infrastructure?   [8 Marks]

  c). What is Remote sensing?   [4 marks]

QUESTION THREE

a). Explain the benefits of setting data standards in GIS.   [8 Marks]

b). What are the major GIS functions?   [8 Marks]

c). What is Internet?   [4 marks]

QUESTION FOUR

a). What is public policy?   [4 Marks]

b). What are the key characteristics or attributes of public policy development?   [6 Marks]

c). Explain the main stages/steps of the policy making process   [10 Marks]