MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

SECOND YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF ARTS IN URBAN & REGIONAL PLANNING WITH INFORMATION TECHNOLOGY

CITY CAMPUS –REGULAR

PUR 215: INTRODUCTION TO GIS

Date: 16th February, 2018

Time: 2.00 - 5.00pm

INSTRUCTIONS:

- Answer Question ONE and any other TWO.

PUR 215 - INTRODUCTIONS TO GIS

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

1

    a) Write short notes on the following (6 Mrks)

       i) GIS

       ii) Metadata

       iii) Spatial data

    b) Discuss the main tasks of GIS (8 Mrks)

    c) Discuss the two common types of coordinate systems used in GIS (4 Mrks)

    d) Discuss the major sources of data for GIS (4 Mrks)

    e) Discuss the concept of data sharing in GIS, highlighting the factors that make direct data acquisition unpopular (8 Mrks)

2

    a) Define a base map and explain its role in thematic mapping (4 Mrks)

    b) Population data for Nairobi City is available in form of totals based on constituency units, it is required that this data is presented on a map at a scale 1/50,000

       i) Identify with reasons, base information that should be used for this map (8 maps)

       ii) Discuss any two different mapping methods that can be used to represent this data effectively (8 Mrks)

3

    a) Discuss the elements of spatial data quality in the context of GIS (10 Mrks)

    b) Discuss map projection and the various types supported in GIS (10 Mrks)

4

a) Discuss the following data types (20 Mrks)

    i) Vector data

    ii) Raster data

    iii) Network data

5

    i) Discuss Attribute data

a) the storage digital data media on the market today and their typical capacities (10 Mrks)

b) Discuss the factors to consider when choosing a projection to be used in any GIS work

(10 Mrks)

6

a) Discuss how GIS can be used to support the following activities (20 Mrks)

    i) National Elections   ii) Tax collection