TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF ENGINEERING AND TECHNOLOGY

DEPARTMENT TOURISM

UNIVERSITY EXAMINATION FOR:

BSC IN CIVIL ENGINEERING

ECV 4240: GIS SYSTEMS

END OF SEMESTER EXAMINATION

SERIES:APRIL2016

TIME:2HOURS

DATE:16May2016

Instructions to Candidates
You should have the following for this examination
-Answer Booklet, Drawing Instruments, Scientific calculator, examination pass and student ID
This paper consists of five questions. Attempt question ONE (Compulsory) and any other TWO questions.

Question ONE (Compulsory)

a). Discuss common editing problem in vector and raster format (8 Marks).

b). Explain how features are represented in vector and raster data (10 Marks).

c). What is Database Management Systems? Discuss the advantages and disadvantages of using the system (12 Marks).

Question TWO

a) List down ANY SIX parameters used in the evaluation of a digitizer (6 Marks).

b) Describe the components of a GIS system (12 Marks).

c) Give two reasons behind scanning (2 Marks).

Question THREE

a).   Discuss the following functions for storing, registration and entering of data (Map digitization system):

i). Data entry functions

ii). Organization of storage operations   (6 Marks).

b).   GIS technology is incorporated into a wide range of management and decision making operations. State the main reasons for the above statement

(8 Marks).

c).   What are the main reason of implementing a GIS system   (5 Marks).

d).   Define the term GIS system   (1 Mark)

Question FOUR

a).   Citing advantages and disadvantages of batch and interactive modes, explain the importance of the two systems in editing   (8 Marks).

b).   What are the functions for analysis GIS data?   (4 Marks).

c).   What are the main components of GIS software or tools   (7 Marks).

Question FIVE

a).   Classify benefits in terms of tangible and intangible   (10 Marks).

b).   Discuss data collection processes in a GIS system   (10 Marks).