



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF HEALTH SCIENCES
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
PUBLIC HEALTH AND BACHELOR OF SCIENCE IN COMMUNITY HEALTH
DEVELOPMENT
2RDYEAR 1ST SEMESTER 2016/2017 ACADEMIC YEAR
KISII CAMPUS-PART TIME STUDENTS

COURSE CODE: PSP 3214

COURSE TITLE: GEOGRAPHIC INFORMATION SYSTEMS

EXAM VENUE:

EXAM SESSION:

DATE: AUGUST, 2016

TIME: 2 HOURS

Instructions:

1. Answer All questions in Section A and any 2 in section B
2. Candidates are advised not to write on the question paper.
3. Candidates must hand in their answer booklets to the invigilator while in the examination room.
4. Use sketch maps and diagrams wherever they serve to illustrate an answer.

SECTION A

1. Write short notes on the following:
 - i. Geographic information systems. (3marks)
 - ii. Remote sensing. (3marks)
 - iii. Geographic data. (3marks)
 - iv. GIS user. (3marks)
 - v. Map. (3marks)
2. Give three advantages of GIS when compared to traditional maps. (3marks)
3. State three issues likely to constrain the spread of GIS in Kenya. (3marks)
4. Explain three areas of GIS application. (3marks)
5. Briefly explain what spatial data is. (3marks)
6. State any three sources of GIS data. (3marks)

SECTION B

1. You have been identified by the Ministry of Public Health and Sanitation, as a consultant to put in place a geographic information system to aid most of its operations. Describe on how you will go about the GIS implementation process. (20marks)
2.
 - a) Discuss the three main categories of sources of error in GIS. (10marks)
 - b) Explain reasons for the use of Geographic Information System in the public health sector in Kenya. (10marks)
3.
 - a) Describe the basic components of an ideal remote sensing system. (12marks)
 - b) Explain the contributions of remote sensing to GIS technology. (8marks)
4.
 - a) Briefly discuss the fundamental differences between raster and vector GIS data models. (10marks)
 - b) Explain the main task/functions of a Geographic Information System/GIS. (10marks)