



# **MASENO UNIVERSITY**

## **UNIVERSITY EXAMINATIONS 2017/2018**

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

### **CITY CAMPUS -REGULAR**

#### **PUR 316: SURVEYING**

Date: 19<sup>th</sup> February, 2018

Time: 2.00 - 5.00pm

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#### **INSTRUCTIONS:**

- Answer Question ONE and any other TWO.



## PUR 316: SURVEYING

Answer questions **one (1)** and any other **two**

1. Using A and B as reference points of known location and distance on the ground, describe how the following techniques and could be used to fix the positions of C in the field
  - (a) Trilateration (4 marks)
  - (b) Triangulation (4 marks)
  - (c) If the distance from A to C was 189.6m, after measuring it with a 20m chain was 0.4m shorter calculate the correct distance (4 marks)
  - (d) Explain any three basic qualities of good field notes (6 marks)
  - (e) Explain the radiation method in plain table survey (12 marks)
  
2. Describe the classification of surveying based on the following
  - (a) shape of the earth (8 marks)
  - (b) The instruments used (12 marks)
  
3.
  - (a) Explain the procedure of conducting a compass traverse (6 marks)
  - (b) The sources of errors in compass survey (8 marks)
  - (c) The methods of eliminating the errors (8 marks)
  
4. Using diagrams illustrate the following (a) and (b)
  - (a) Cross sectional leveling (6 marks)
  - (b) Reciprocal leveling (6 marks)
  - (d) Sources of errors in leveling (8 marks)
  
5.
  - (a) Using illustrations explain open and closed traverse (6 marks)
  - (b) Discuss three applications of traverses (4 marks)
  - (c) Illustrate two ways of adjusting traverses (10 marks)
  
6. Discuss the segments in GPS survey (10 marks)  
Discuss any five advantages of using satellite positioning systems for surveying (10 marks)

## PUR- 413 NATURAL RESOURCE MANAGEMENT

### INSTRUCTIONS: ANSWER QUESTION 1 AND ANY OTHER TWO

1. a) Discuss the concept of sustainable development and its implications in Kenya **(15 marks)**  
b) Explain the **SEVEN** main challenges affecting the Fisheries sector in Kenya **(15 marks)**
2. Energy is becoming a critical driver of development locally and globally. Discuss why there is need to shift from conventional forms of energy to renewable energy. **(20 marks)**
3. a) Discuss the essence of rangeland management in Kenya. **(10 marks)**  
b) Economic development and sustainable development complement each other. Discuss **(10 marks)**
4. Kenya Vision 2030 places a national target on forest cover of 10% by 2030. Discuss the challenges your home county is facing in meeting this target **(20 marks)**
5. Using illustrations and diagrams where applicable, define the following concepts;
  - a) Natural resource **(5marks)**
  - b) Ecosystem management **(7 marks)**
  - c) Food chain **(8 marks)**
- 6 a) Examine **FIVE** threats caused by climate change to the natural resources in Kenya **(10 marks)**  
b) Discuss **FIVE** key objectives of the National Land policy in Kenya **(10marks)**