

UNIVERSITY EXAMINATIONS

1ST SEMESTER 2022/2023 ACADEMIC YEAR

**FIRST YEAR EXAMINATION FOR THE DEGREE OF
BACHELOR OF SCIENCE (GEOGRAPHY)**

GEOG 114: PRACTICAL GEOGRAPHY AND FIELDWORK I

STREAM: R

TIME: 2 HRS

DAY: FRIDAY [11.30AM – 13.30]

DATE: 09/12/2022

THIS QUESTION PAPER CONSISTS OF FOUR (4) PAGES

PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.

QUESTION ONE (Compulsory-30 marks)

- (a) Explain the meaning of fieldwork in geography differentiating it from practical geography (2 marks)
- (b) Identify and explain THREE post-fieldwork activities (3 marks)
- (c) Provided is a topographical map of Njoro, Kenya, sheet number 118/4, edition S-D.O.S. 1975 at a scale of 1:50,000. Use it to answer the below questions: -
- i) Name the neighbouring maps in series (2 marks)
 - ii) Compute the approximate area of Njoro Municipality (4 marks)
 - iii) Using the tracing paper provided and an appropriate method, draw the area covered by Njoro Municipality at a scale of 1:25,000 (4 marks)
 - iv) Give evidences that the map was partly made through aerial photography (2 marks)
- (d) Using the graph paper provided, draw a cross-section on a transect line defined by UTM coordinates 816^{000mE}, 9950^{000mE}, and 822^{000mE}, 9950^{000mE} (8 marks)
- (e) Assume that two road intersections shown on a map can be located on a 1:25,000 scale vertical aerial photo. The measured distance between the intersections is 47.2 mm on the photo and 94.3 mm on the map.
- i) Calculate the scale of the map (3 marks)
 - ii) At that scale, compute the length of a fence line that measures 42.9 mm on the map (2 marks)

QUESTION TWO

- a) Write short notes on the following:
- i) Topographical map (2 marks)
 - ii) Aeronautical chart (2 marks)
 - iii) High oblique aerial photograph (2 marks)
 - iv) Aerial photo interpretation (2 marks)
 - v) Graticules (2 marks)
- b) Explain what is meant by map scale and using relevant sketches, discuss THREE ways through which the scale may be represented on a map (10 marks)

QUESTION THREE

- a) Examine the concept of map generalization and the cartographic techniques used to achieve it (10 marks)
- b) Discuss any FIVE reasons for carrying out fieldwork in geography. (10 marks)

QUESTION FOUR

- a) List any FOUR marginal information found on a topographical map. (2 marks)
- b) Discuss the FOUR categories of information that can be derived from an aerial photograph. (8 marks)
- c) Detach the page with Figure 2 attached below and use it to perform the following tasks:
 - i) Draw contour lines within the study area (5 marks)
 - ii) The study area is served by a river. Sketch it and show the flow direction (5 marks)

QUESTION FIVE

- a) Figure 1 below is a photograph showing a land use in part of Nairobi, Kenya. Use it to answer the questions below



Figure 1: A land use in Nairobi

- i) Giving evidence, identify the possible land use. (4 marks)
 - ii) Using appropriately named aerial photo interpretation keys, describe any THREE features shown on the photograph (6 marks)
- (b) Identify any FIVE basic map information, explaining the significance of each. (10 marks)

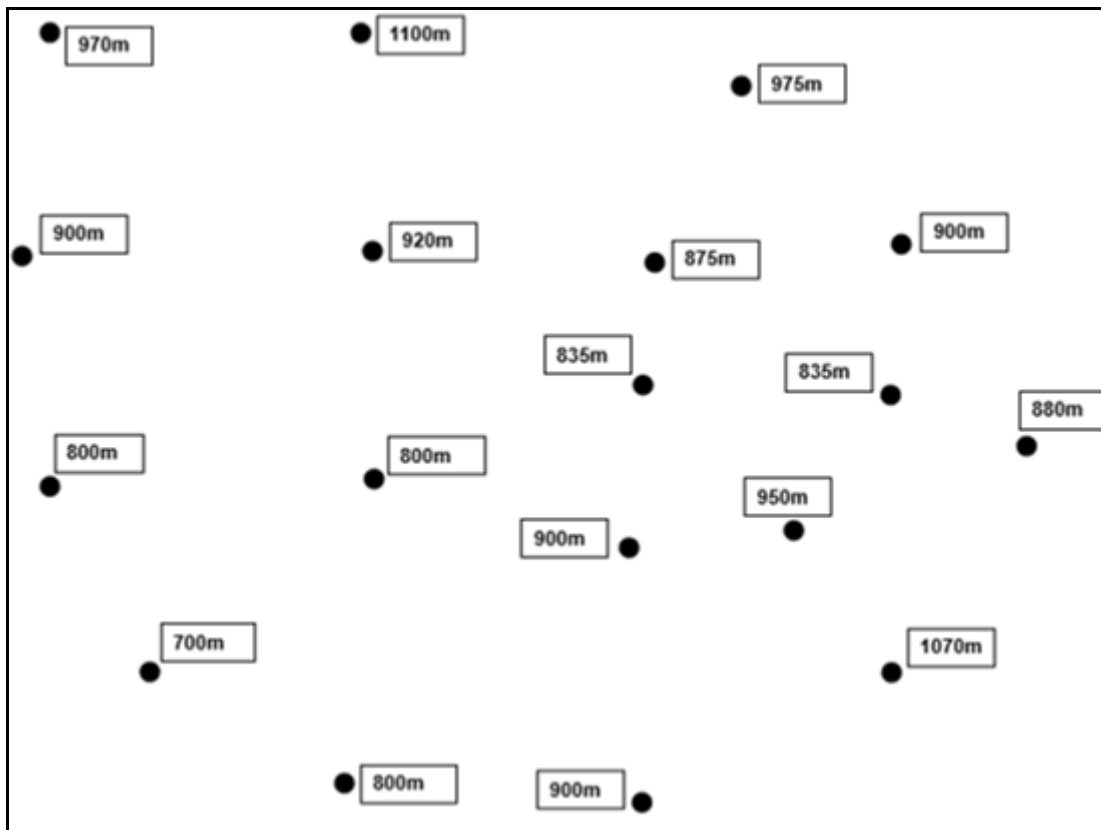


Figure 2: Spot heights showing elevations in Metre