



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF SPATIAL PLANNING AND NATURAL RESOURCE MGT
UNIVERSITY EXAMINATION FOR DIPLOMA IN LAND SURVEY
2ND YEAR 2ND SEMESTER 2023/2024 ACADEMIC YEAR
MAIN REGULAR

COURSE CODE: PCD 1201

COURSE TITLE: TOPOGRAPHICAL MAP II

EXAM VENUE: AH

STREAM: (DIPLOMA IN CARTOGRAPHY)

DATE: 02/05/2024

EXAM SESSION: 14.00 – 16.00 PM

TIME: 2 HOURS

Instructions:

- i. Attempt Question ONE (COMPULSORY) and any other THREE questions.**
- ii. Candidates are advised not to write on the question paper.**
- iii. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

QUESTION ONE

- i. Assuming you have been selected to conduct a topographical survey within Jaramogi Oginga Odinga University of Science and Technology, outline the procedure you would use to prepare a topographical map (20 marks)
- ii. The following terms are used in topographical mapping. Define on the following terms;
 - a) Map projection (2 marks)
 - b) Map georeferencing (2 marks)
 - c) Topo cadastral map (2 marks)
- iii. Differentiate between base map and basic map giving example in each case (5 marks); -
- iv. State two reasons why scale enlargements are not recommended during map compilation (3 marks)
- v. State two methods of checking accuracy of grid squares (2 marks)
- vi. Explain the purpose of showing both spot heights and contour lines on topographic maps (4 marks)

QUESTION TWO

Map digitization is one of the procedures followed during map production. Briefly outline;

- a) Some of the techniques required (8 marks)
- b) Uses of the digitized maps (8 marks)

Explain the necessity of color separation in map production (4 marks)

QUESTION THREE

- a) Distinguish between map production and map reproduction (6 marks)
- b) Explain how Topo cadastral maps can be used for legal purpose for boundary dispute (14 marks)

QUESTION FOUR

- a) List some of the tools used for map georeferencing (2 marks)
- b) Differentiate between a topo cadastral map and Topographic map (10 marks)
- c) IMW (index map worksheet) sheet breakdown and Indexing involves several key steps. Briefly outline these key steps (8 marks)

QUESTION FIVE

- a) Costing of topographical maps is depended on various factors. Explain how scale, coverage area, level of detail, format and source would affect costing topographical maps. (15 marks)
- b) Outline ways in which topographical maps are used in Urban planning and development. (5 marks)