FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF PHYSICAL SCIENCES
DEPARTMENT OF GEOGRAPHY
SECOND SEMESTER 2014/2015 SESSION UNDERGRADUATE EXAMINATION

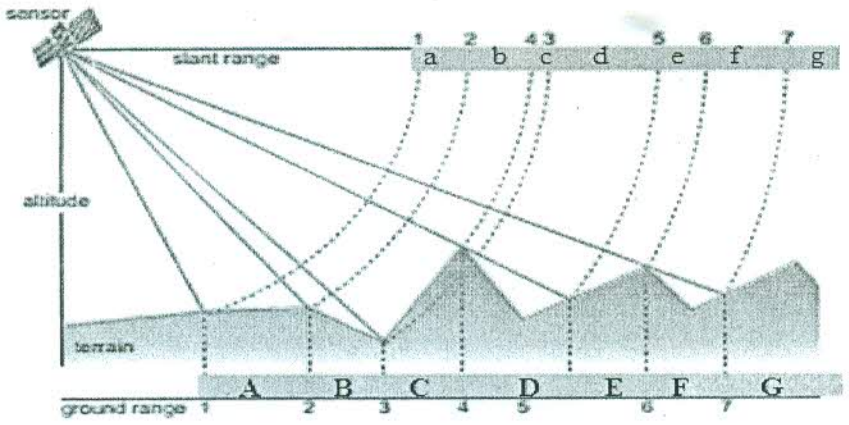
COURSE CODE: REM 320: Radar System

COURSE TITLE: SYSTEM II-RADAR

INSTRUCTIONS: Answer any FOUR (4) questions. Credit will be given for the use of specific examples and illustrations with relevant diagram.

1. Give an explanatory notes on **any three** of the following

A. Radar Signal Routing
B. Radar Signal Timing
C. Radar Ranging
D. Radar Bearing measurement
E. Radar Target Resolution



2. Above is the hypothetical geometry distortion in radar imagery due to terrain distortion:

A. Identify any four likely distorted areas with their labels
B. Name the type of distortion at each identified points
C. Explain each type of distorted areas based on the characteristics of the terrain

D. Explain the influence of the geometrics distortion on the received energy by the radar at each points

3 Radar depends on the measurement of range to create an image in the cross track direction. They are forced to look to the side to allow the sensors to differentiate targets on the ground tracks for imaging. Expatiate using relevant diagram

4 Argue for or against the statement that, the inventions of Radar have been more beneficial than detrimental.

5. Give an explanatory account of Radar scattering coefficient (RCS) as an indispensable target parameter influenced by several target factors

6. The side looking geometry of Radar has a number of descriptive terms and peculiarities that must understood along with their properties and relationships. With the aid of a well labeled diagram, Identify and Describe Five(5) of these Terms