DEPARTMENT OF GEOGRAPHY
SCHOOL OF NATURAL AND APPLIED SCIENCE
FEDERAL UNIVERSITY OF TEHNOLOGY, MINNA

SECOND SEMESTER EXAMINATION 2012/2013
COURSE CODE: REM322P
COURSE TITTLE: SYSTEM (III); OTHER MICROWAVE SENSORS.

INSTRUCTIONS: ANSWER QUESTION NUMBER ONE AND ANY OTHER THREE.

TIME ALLOWED: 2 HOURS.

1. Discuss in details, remote sensing applications in AGRICULTURE or SETTLEMENT with the use of a specific micro wave sensor.
2. In details, explain the operational system of PASSIVE and ACTIVE micro wave sensor using specific sensor for each.
3. (a). Give a detailed explanation of micro-wave Radiometer.
   (b). Define micro-wave scatterometer and explain the types.
4. In selecting image data, four resolution components are to be considered. Mention them and explain any two.
5. (a). What is micro-wave altimeter (Radar altimeter)?

(b). (i) Calculate the sea surface height when the height of the satellite from the reference ellipsoid is 10,150km and the distance between the satellite and the sea surface is 50km.

(ii) Calculate the sea surface height when the sea surface topography is 40km and the geoid height is 70km