

**DEPARTMENT OF GEOGRAPHY  
SCHOOL OF PHYSICAL SCIENCE  
FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA**

**SECOND SEMESTER EXAMINATION 2014/2015**

**COURSE CODE: REM322**

**COURSE TITLE: SYSTEM (III); OTHER MICROWAVE SENSORS.**

**INSTRUCTIONS: ANSWER QUESTION NUMBER ONE AND ANY OTHER THREE.**

**TIME ALLOWED: 2hrs30mn.**

1. Microwave Remote Sensing is dynamic in operation, discuss.
2. With the use of specific example(s), discuss micro-wave remote sensing application on AGRICULTURE.
3. (a). Explain in details the micro-wave altimeter ?  
(b). (i) Calculate the mountain height when the distance between the surface and the sensor is 2850km and the distance between the sensor and the top of mountain is 2842km.  
(ii) Calculate the surface height when geoid height 85km and sea surface topography is 30km
4. Explain in details the differences between PASSIVE and ACTIVE micro wave sensors using specific sensor(s) for each.
5. (a). Explain in details the uses of micro-wave Radiometer.  
(b). Examine the micro-wave scatterometer and describe the two main types.
6. Discuss in details, the remote sensing application in settlement with the use of a specific micro wave sensor.