FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA

SCHOOL OF PHYSICAL SCIENCES

DEPARTMENT OF GEOGRAPHY

SECOND SEMESTER 2015/2016 SESSION UNDERGRADUATE EXAMINATION

COURSE CODE: REM322

COURSE TITLE: System III- Other microwave sensors (3units)

INSTRUCTION: Answer **questions one and any other three** (Credits will be given for proper usage of relevant illustrations and diagrams)

TIME ALLOWED: 2hrs

1. Explain in detail the microwave remote sensing
2. Using specific microwave sensors, explain in details the differences between passive and active microwave sensors
3. (a) If the distance between the satellite and the sea surface is 2,610km and the sea surface height is 7km, calculate the altitude of the satellite from the reference ellipsoid.

   (b) Calculate the surface topography when the geoids height is 70km and the sea surface height is 9km.
4. Using microwave sensor(s), discuss Remote sensing application on SETTLEMENT or AGRICULTURE.
5. (a) Define and explain the microwave Radiometer.

   (b) Define microwave scatterometer and explain it types.