**NATIONAL OPEN UNIVERSITY OF NIGERIA**

**14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS**

**SEPTEMBER/OCTOBER 2015 EXAMINATION**

**SCHOOL OF SCIENCE AND TECHNOLOGY**

**COURSE CODE: CIT 758**

**COURSE TITLE:WIRELESS COMMUNICATION II**

**Time:** 2½ hours

**Instruction**: *Answer any five questions each question carries 14 marks*

1. (a) What do you understand by Diversity?***(4 marks)***

(b) Name and describe any four classes of diversity***(10 marks)***

2. (a) State and describes the components parts of a Cellular System***(8 marks)***

(b) Name and describe any three challenges of RFID***(6 marks)***

3. (a) What do you understand by “Error Detection Code”?***(2marks)***

(b) Write short notes on any four types of error detection. ***(12marks)***

4. (a) Define Modulation***(2 marks)***

(b) State, with example in each case, the aim of the following types of modulation

1. Analog modulation ***(1½ marks)***
2. BandPass Digital modulation***(1½ marks)***
3. Line coding modulation ***(1½ marks)***
4. Pulse shaping modulation ***(1½ marks)***

(c) What is Multiple Access? ***(2 marks)***

(d) State four examples of Wireless Communication gadgets ***(4 marks)***

5. Write short notes on the following stating their advantages and disadvantages

(a) Geostationary orbits (GEO) ***(3 marks)***

(b) Low-Earth-orbiting satellites ***(4½ marks)***

(c) Medium Earth Orbit (MEO) ***(4½ marks)***

6. (a) What is Error Control? ***(2 marks)***

(b) Write briefly on the following:

(i) Backward Error Control ***(6 marks)***

(ii) Forward Error Control ***(6 marks)***

7. (a) Briefly describe the following

i**)**Spread spectrum multiple access (SSMA) ***(5 marks)***

ii) Space Division Multiple Access (SDMA) ***(6 marks)***

(b) State the advantages of TDMA over FDMA. ***(3 marks)***