



Faculty of Information Technology

Final Exam, 2021/2022(1)

Course Name: Mobile Communication (COSC 415)

Instructor: NIZEYIMANA Pierre Celestin

Exam Duration: 2h00

Group : Evening

Date : 06/06/2022

MOBILE COMMUNICATION / 40 marks

1. To understand how satellites behave after launching them, one has to understand the movements of the earth. What is the speed of the earth? / **5 marks**
 - a. While revolving around the sun
 - b. While rotating around its self
2. Why is the cost of launching satellites very high? / **5 marks**
3. What is the average altitude the following satellites operate at? / **5 marks**
 - a. LEO satellites
 - b. MEO satellites
 - c. GEO satellites
4. What is the meaning of geostationary orbit and why is it very important for satellite communication? / **5 marks**
5. Why voice services prefer to use LEO and MEO satellites instead of GEO satellites? / **5 marks**
6. Describe each of the three components of a satellite: Communication, Power, Propulsion. / **5 marks**
7. Explain the following with regards to satellites management: / **5 marks**
 - a. Attitude control
 - b. Station keeping
8. How does VSAT technology differ from other satellites? What is it that VSAT technology is mainly used for? / **5 marks**

<<BEST OF LUCK>>