**UNIVERSITY EXAMINATION 2018/2019**

**SCHOOL OF COMPUTING AND INFORMSTICS**

**DEPARTMENT OF INFORMATION TECHNOLOGY**

**DIPLOMA IN INFORMATION TECHNOLOGY/DIPLOMA IN BUSINESS**

**INFORMATION TECHNOLOGY**

**REGULAR**

**UNIT CODE: DIT2206 UNIT TITLE: FUNDAMENTALS OF**

**WIRELESS AND MOBILE**

**COMMUNICATIONS TECHNOLOGIES**

**MAIN EXAM TIME: 2 HOURS**

**INSTRUCTIONS: Answer question ONE and any other TWO questions.**

**QUESTION ONE**

1. Define the following terms as used in wireless and mobile communications.

(10 marks)

1. Roamer
2. Handoff
3. Fading
4. Bluetooth
5. Wimax
6. Highlight any five features of 4G system. (5 marks)
7. Discuss the requirements for 4G system. (5 marks)
8. Define a cell and outline the four types of channels that take active part during a mobile Cell; discuss these channels (5 marks)
9. Define cell splitting and differentiate between permanent splitting and dynamic splitting. (5 marks)

**QUESTION TWO**

1. Discuss the frequencies used by the wireless connection systems.(10 marks)
2. In relation to Bluetooth, discuss the three types based on the output power ratio. (10 marks)

**QUESTION THREE**

1. Wireless communication is popular because of its technologies, discuss any five. (10 marks)
2. Define paging and discuss the different types utilized today. (10 marks)

**QUESTION FOUR**

1. Wireless communications is becoming the most preferred choice of communication today, discuss. (10 marks)
2. Discuss any five features of cellular systems. (10 marks)

**QUESTION FIVE**

1. Define radio transmission and explain its advantages. (10 marks)
2. Explain propagation and discuss its three modes. (10 marks)