

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY**

**OF**

**AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2015/2016**

**YEAR 2 SEMESTER I EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY**

**BIT 2223: MOBILE COMPUTING**

**DATE: August 2016 TIME: 2 HOURS**

**INSTRUCTIONS:**

**Answer Question One and Any Other Two Questions**

**QUESTION ONE (30 marks)**

1. Differentiate between
2. A care-of-address (COA) and home address (HA) in mobile IP (4marks)
3. Hard Hard-off and Soft-Hard-off (4marks)
4. List any three mobile OS (3marks)
5. Outline any four challenges of mobile computing (4marks)
6. Define
7. Mobile computing
8. Foreign Agent
9. Tunneling
10. CDPD (Cellular Digital Packet Data) (8marks)
11. Describe WML script stating an example (4marks)
12. Briefly describe 1G technology (3marks)

**QUESTION TWO (20 marks)**

1. Explain the concept behind the Wireless Application Protocol (8marks)
2. Briefly explain the following technologies as used in mobile computing
3. 2G
4. 2,5G
5. 3G
6. 5G (12marks)

**QUESTION THREE (20 marks)**

1. Define GSM; its an acronym of what? Explain the GSM system architecture (14marks)
2. Define mobility management? Explain in details how handover in GSM works (6marks)

**QUESTION FOUR (20 marks)**

1. Distinguish between Android and J2ME (4marks)
2. Explain IP packet delivery, agent advertisement, discovery and registration process in mobile IP (8marks)
3. Describe the General Packet Radio Service (GPRS) (8marks)