

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

**JOMO KENYATTA UNIVERSITY**

**OF**

**AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2015/2016**

**YEAR 4 SEMESTER I EXAMINATION FOR THE DEGREE OF BACHELOR OF PURCHASING AND SUPPLIES MANAGEMENT**

**BIT 2116: NETWORK DESIGN AND MANAGEMENT**

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

**Instructions: Answer Question One (Compulsory) and Any Other Two Questions**

**QUESTION ONE**

1. i. Describe the following types of network
2. Peer to peer (3marks)
3. Server based (3marks)

 ii. Various configurations, called topologies have been used to administer LANS. Describe four topologies using diagrams (4marks)

1. i. Describe the following terms
2. DSL (2marks)
3. Broadband (2marks)
4. ISP (2marks)
5. Downloads (2marks)
6. Uploads (2marks)

 ii. Network software translates a hostname into its corresponding IP address. For example

 205.39.145.18

 Describe the above components of an IP address (4marks)

1. Describe four networking equipment (4marks)

**QUESTION TWO**

1. Describe what is cable crimping (3marks)
2. Draw the structure for the following cables
3. Coax cable
4. Twisted pair cable
5. Fible cable (10marks)
6. Describe the procedures for crimpling cross-over cable (7marks)

**QUESTION THREE**

1. Describe four wireless transmission media (8marks)
2. Describe how the following network equipment works
3. NIC
4. Bridge
5. Switches
6. Rooter
7. Gateway (12marks)

**QUESTION FOUR**

Develop a small LAN network for a small organization

1. Describe the topology you will adapt (use diagram)
2. Assume you have three departments and each department you assigned a computer, all sharing one printer and server, assign IP addresses for your network
3. Show the location of a firewall and describe two uses of firewall
4. Explain two roles of IP address (20marks)

**QUESTION FIVE**

1. Describe how IP address are managed and distributed (4marks)
2. Describe RIRs and explain five RIRs (8marks)
3. Describe the following IP addresses
4. Dynamic IP addresses (4marks)
5. Static IP addresses (4marks)