

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

**JOMO KENYATTA UNIVERSITY**

**OF**

**AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2015/2016**

**SECOND YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE**

**OF BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY**

 **BIT 2204: NETWORK SYSTEM ADMINISTRATION**

**DATE: DECEMBER 2015 TIME: 2 HOURS**

**INSTRUCTIONS: ANSWER QUESTION ONE AND ANY OTHER**

**TWO QUESTIONS**

**QUESTION ONE (30 MARKS)**

1. Define the following terms: [10 marks]
2. Attenuation
3. Protocol
4. Half duplex
5. Full duplex
6. VOIP

1. Advice a company that is interested in setting up a new network on

the factors that needs to be considered. [6 marks]

1. Describe what makes a network efficient. [6 marks]
2. Transmission of data through a medium is essentially a function

 of Bandwidth and data rate. Describe how the two factors relates

to each other. [4 marks]

1. Discuss the factors of the transmission mediums to implement

on a network. [4 marks]

 **QUESTION TWO (20 MARKS)**

1. Data on transit is constantly under the risk of being accessed and

 use by adversaries to the detriment of the owners. Discuss some

 of the threats associated with data on transit. [8 marks]

1. Describe some of the measures that one would need to employ to

 protect the network and data to mitigate the effects of the attacks. [8 marks]

c) Discuss t network use and user policy and list any two items that

 should be included in it. [4 marks]

**QUESTION THREE (20 MARKS)**

1. Describe any FOUR tools available to the network administrator to

generate documentation. [8 marks]

1. Define the concept of moving a network. [4 marks]
2. State some of the issues that needs to be considered at the planning

phase before moving a network [6 marks]

1. Discuss any TWO reasons that a network may experience downtime. [2 marks]

**QUESTION FOUR (20 MARKS)**

1. Discuss any FOUR reasons that may occasion upgrading a network. [8 marks]
2. Define the term Network congestion. [2 marks]
3. State the relationship between congestion control and quality of service. [4 marks]
4. Describe the congestion of control techniques defined under open

loop congestion control. [6 marks]