



**MURANG'A UNIVERSITY COLLEGE**  
**(A Constituent College of Jomo Kenyatta University of Agriculture & Technology)**

COMPUTER NETWORKS

CODE: BIT 2108

TIME ALLOWED: 2 HOURS

DATE: AUGUST 2013

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**Instructions:**

- Answer question one and any other two

**Question One**

a. Define the following terms as used in networks;

- Transmission system
- Noise
- Sink
- Attenuation
- Transmitter

[10 marks]

b. Briefly describe following IEEE 802.3 standards for transmission specification.

10 – BASE – 2

10 – BASE – 5

10 – BASE – FO

10 – BASE t

802.3

[10 marks]

c. Differentiate between the following set of terms;

- Asynchronous Transfer mode and synchronous mode
- Logical topology and physical topology
- De facto standard and de-jure standard
- Client and server
- Packet and BIT

[10 marks]

**Question Two**

- a. When planning to establish a computer network for an organisation, one need to do a cost benefit analysis. Describe the aspects that needs to be considered. [20 marks]

**Question Three**

- a. State and describe the three basic nodes connection strategies. [9 marks]
- b. Define the term Network topology. [2 marks]
- c. With the aid of a diagram, illustrate the implementation of the three basic network topologies. [9 marks]

**Question Four**

- a. ....the advantages introduced by fiber optical cable over other guided medium. [6 marks]
- b. Describe the seven layers of the OSI reference model illustrating their interaction relationships in a sketch diagram. [14 marks]

**Question Five**

Describe the FIVE functional areas of Network management. [20 marks]