

KENYA METHODIST UNIVERSITY

**END OF 3RD TRIMESTER 2016 (EVENING) EXAMINATION**

**FACULTY : COMPUTING & INFORMATICS**

**DEPARTMENT : CIS & BI**

**UNIT CODE : CISY 332/BBIT 446/BBIT 313/DCIS 220**

**UNIT TITLE : NETWORK HARDWARE & CONFG**

**TIME : 2 HOURS**

**Instructions: Answer Question ONE and any other TWO Questions.**

**Question One**

1. Distinguish between ICMP and IGMP as seen in the O.S.I reference model.

(4 Marks)

1. Explain what is meant by the term hierarchical name space. (4 Marks)
2. Explain what is meant by the term loopback test. (4 Marks)
3. Differentiate between the terms gateway and interface as found in routing in the network layer of the O.S.I reference model. (4 Marks)
4. Briefly discuss the classification of inter connection devices. (4 Marks)
5. Explain the following tools and how they are used for network trouble shooting. ( 6 Marks)
* Cable tester
* Multi meter
* Protocol analyzer
1. Describe the following network terms. (4 Marks)
* Frame relay
* Packet switching

**Question Two**

1. Being the network consultant for a network cabling firm in Nairobi; you have been asked to give a talk to college students in regards to the installation of structured cabling. Write short notes in regards to what you would present. (6 Marks)
2. Using an example, explain how name resolution works with DNS.

 (5 Marks)

1. Explain the following terms as they pertain to computer networks.

(4 Marks)

1. Packet switching
2. Frame Relay

**Question Three**

1. What is the broadcast address on subnet 32 given a prefix notation of 12.1..0.0/12? (4 Marks)
2. Having gone through the class of network hardware and configuration; discuss the implementation of a virtual LAN. (7 Marks)
3. Explain the payload of all the seven layers of the O.S.I reference model.

(4 Marks)

**Question Four**

1. During the testing of cables after an installation, what are some of the factors that can contribute to a non-functional cable. (6 Marks)
2. Explain the FOUR different stages of IP assignment using DHCP.(6 Marks)
3. Discuss the following fibre carriers. (3 Marks)
4. SONET
5. SDH
6. OC