



MURANG'A UNIVERSITY COLLEGE

(A Constituent College of Jomo Kenyatta University of Agriculture and Technology)

University Examinations 2015/2016 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

**SPECIAL/SUPPLEMENTARY SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF BUSINESS INFORMATION TECHNOLOGY**

HBT 2204 : NETWORK DESIGN AND MANAGEMENT

TIME 2 HOURS

MAIN CAMPUS

Instructions: Answer Question 1 and Any Other Two.

Question 1

- a) Define the following terms:
- i) Network management (2 marks)
 - ii) Management Information (2 marks)
 - iii) CDMA (2 marks)
 - iv) Domain (2 marks)
- b) Define medium access as applied in computer network (2 marks)
- c) Compare and contrast THREE popular medium access methods (6 Marks)
- d) Describe FOUR main goals of computer network design (8 Marks)
- e) Explain FOUR key factors that you would consider while deciding on the best transmission media for a computer network (6 Marks)

Question 2

- a) Describe the following computer network management functions
- i) Security management
 - ii) Accounting management
 - iii) Fault management
 - iv) Performance management

- v) Configuration management (10 Marks)
- b) Distinguish between dynamic IP address assignment and static IP address assignment (2 marks)
- ii) Describe dynamic IP address assignment works (8 Marks)

Question 3

- a) Discuss any FOUR Types of cables used in networks stating their advantages and disadvantages (8marks)
- b) Identify FIVE ways that you would physically configure cables, computers, and other peripherals detailing devices that you would use. (10marks)
- c) List FOUR protocols and identify where they are used on the OSI model (2marks)

Question 4

- a) Briefly explain what DNS is and what it does. (4 marks)
- b) Simple Network Management Protocol (SNMP) is a UDP-based network protocol. It is used mostly in network management systems to monitor network-attached devices for conditions that warrant administrative attention. As a graduate of Computer network management course, using a diagram, identify the SEVEN SNMP protocol data units (PDUs) (8marks)
- c) Differentiate between a client and a server and indicate ports they use in the context of Web traffic. (8marks)