KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2017/2018 ACADEMIC YEAR
DIPLOMA IN BUSINESS INFORMATION TECHNOLOGY

DBT 029 - COMPUTER NETWORKS

Date:
Time:

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 MARKS)

a) Differentiate between data and information   (2 Marks)

b) Define what a system is, outlining its components and explain how data is processed
                                                                                        (6 Marks)

c) Distinguish between Information system and Information technology   (4 Marks)

c) Explain the following terms:

      i.   Network topology

     ii.   Input devices

    iii.   Database

    iv.   System software

     v.   E-commerce
                                                                                        (10 Marks)

e) Discuss in detail at least 2 Types of Network Models   (6 Marks)

f) Differentiate between Intranets and Extranets   (2 Marks)

QUESTION TWO (20 MARKS)

a) Define Network Standards and discuss at least 4 types of Network standards   (10 Marks)

b) Many businesses have adopted networking as a way of advertising themselves thus increasing their profits. What benefits are derived as a result of networking

(8 Marks)

c) Define the term "Bus" in reference to computers   (2 marks)

QUESTION THREE (20 MARKS)

a) Discuss and state the functions of the different network layers of the OSI Model   (12 Marks)

b) Differentiate and explain between:

    i.   Routers and Repeaters as networking devices

    ii. Subnet mask and I.P address

(8 Marks)

QUESTION FOUR (20 MARKS)

a) In a network of 192.168.1.67 for computer C. Calculate the number of hosts in computer C

(4 Marks)

b) Explain the various modes of data transmission   (6 Marks)

c) Explain the formula used in calculating the number of hosts in a network   (4 Marks)

d) Highlight at least 6 characteristics that are associated with various transmission media

(6 Marks)

QUESTION FIVE (20 MARKS)

a) Differentiate between web browsers and web servers   (4 Marks)

b) Discuss any three network topologies that facilitate communication among computers

(9 Marks)

c) The computer memory is divided into two major parts. Explain them giving an example for each

(4 Marks)

d) State at least 3 types of E-commerce activities   (3 Marks)