(Knowledge for Development)

KIBABII UNIVERSITY
(KIBU)

UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR
MAIN EXAM
SUPPLEMENTARY/SPECIAL EXAMINATIONS
YEAR ONE SEMESTER ONE EXAMINATIONS
FOR THE DEGREE IN
(INFORMATION TECHNOLOGY)

COURSE CODE : BIT223

COURSE TITLE : NETWORK ADMINISTARTION AND MANAGEMENT

DATE:12/10/2018   TIME:8.00A.M. – 10.00A.M.

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

QUESTION ONE [30 MARKS]

a) Explain the term network management [2 Marks]

b) Give two examples of how network management can help an enterprise IT department save money [2 Marks]

c) State any three players except an **enterprise IT department** that are concerned with different aspects of network management, depending on their particular perspective. [3 Marks]

d) Discuss what is meant by network management complexities [4 Marks]

e) Compare and contrast Device Managers/Craft Terminals and element managers as the tools used in network management. [4 Marks]

f) Network management is divided into five categories i.e. fault, configuration, performance, accounting and security management. Explain what each component entails. [10 Marks]

g) What is SNMP and describe how it functions [5 Marks]

QUESTION TWO [20 MARKS]

a) State and explain reasons for network management [6 Marks]

b) Define routing and explain three types of routing [7 Marks]

c) State four reasons for subnetting a network [4 Marks]

d) State any three organizational aspects that need to be addressed when running a large network [3 Marks]

QUESTION THREE [20 MARKS]

a) To be able to route packets, a router must know, some information, List these information [5 Marks]

b) Define a virtual LAN [2 Marks]

c) Discuss reasons for configuring VLAN on a large network [9 Marks]

d) What do you understand by the term flat network? [4 Marks]

QUESTION FOUR [20 MARKS]

a) As a network administrator at Kibabii University, you are provided with the following Network address 192.168.10.0 and subnet mask 255.255.255.224. Use the information to calculate the following.
   i)   Number of subnets the IP provides
   ii) Number of hosts per subnet

iii)   The valid subnets
iv)   Valid hosts
v)   Broadcast address for each subnet   [20 Marks]

QUESTION FIVE [20 MARKS]

a) When designing a network, the setup of devices are very important and this defines
    network topology. State and explain the advantages and disadvantages of any three
    topologies   [9 Marks]
b) Explain the following terms as related to network management   [8 Marks]
    i.   Operation
    ii.   Administration
    iii.   Maintenance
    iv.   Provisioning
c) State three technologies used in network management   [3 Marks]