SOUTH EASTERN KENYA UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN BACHELOR OF INFORMATION TECHNOLOGY

BIT 408: SERVER ADMINSTRATION AND MANAGEMENT

DATE: 14TH DECEMBER, 2017   **TIME: 8.00 -10.00 AM**

INSTRUCTIONS TO CANDIDATES

a) **Answer <u>ALL</u> questions from section A(Compulsory)**

b) **Answer <u>ANY TWO</u> questions from section B**

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a) Explain **FIVE** duties Responsibilities of a system Administrator   **(5 Marks)**

b) Identify **FIVE** skills that system administrators will require to handle tasks effectively.

(5 Marks)

c) When setting up new a server system its important to set requirements . Describe the requirements needs to set up a Windows server 2012.   **(4 Marks)**

d) List any **FOUR** challenges that are encountered by the systems administrator.

(4 Marks)

e) Kimani is a system administrator working with SEKU , The institute has recently

acquired computers and he has been asked to do the following   **(8 Marks)**

i.   Install DHCP3

ii. Configure server to accept user1 : User1 IP address: 192.168.1.1 ,net mask 255.255.255.254 ,DNS 192.168.1.2 ,gateway 192.168.1.0

iii. Configure Range of IP addresses for users from 192.168.1.0-192.168.1.45

Write down the procedures of accomplishing the above tasks.

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f) Explain the term virtualization and Discuss the Benefits that accrue from its implementation. **(4 Marks)**

QUESTION TWO

a) Describe the procedure followed for implementing for Group policy solution. **(8 Marks)**

b) Security is critical in server environment , explain how the following security technologies work and are implemented

      i)   Bit locker drive encryption

      ii)   App Locker

      iii)   Kerberos

      iv)   Managed service accounts   **(8 marks)**

c) Justify why security audits are essential and crucial in server management   **(4 Marks)**

QUESTION 3

a) Data backup is an important security tool that aids in recovery and restoration of services when disasters strikes

    i.   Describe THREE types of backups   (3 Marks)

    ii.   Identify any TWO factors that are considered when selecting data backup strategy

                    (2 Marks)

    iii. Outline TWO main consideration when selecting backup media   (2 Marks)

    iv. Recommend a plan for managing back up activities   (3 Marks)

b) Describe TWO possible approaches to IP address configuration in a network and for each approach, outline the advantages and disadvantages   (8 Marks)

c) Explain any TWO measures that a systems administrator can use to effectively manage the email services in an organization to prevent possible legal suits arising from use of official email   (2 Marks)

QUESTION 4

a) A Systems administrator creates an account in windows XP for a user and assigns the user permission over certain resources. The administrator then accidentally deletes this account but later creates another account for the user with the same name and same password.

Explain what happens when the user attempts to access the resources for which he/she had been assigned earlier and why? **(6 Marks)**

b) Differentiate between New installation and Clean installation and using a scenario, illustrate when each would be suitable **(6 Marks)**

c) Telnet and ftp are both remote access protocols. Differentiate the two in terms of how they are configured and how they function **(4 Marks)**

d) Windows is a proprietary operating system while Linux is open sources. With reference to the two operating systems, state any **ONE** advantage and **ONE** disadvantage of each type of operating **(4 Marks)**