



MACHAKOS UNIVERSITY

University Examinations for 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

THIRD YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

SIT 303: SYSTEM ADMINISTRATION

DATE: 27/9/2019

TIME: 11.00-1.00 PM

INSTRUCTIONS

Answer Question ONE and Any Other TWO Questions.

Question one (Compulsory)

- (a) Define a host machine (2 Marks)
- (b) State three challenges of system administration and suggest ways of solving each (6 Marks)
- (c) A company having 1000 employees, 10 departments and 20 user roles have been experience problems with user management. Discuss better solutions for the company (10 Marks)
- (d) Discuss access control matrix in a windows environment (5 Marks)
- (e) A fault occurred in a computer due to a full hard disk. Troubleshoot this problem using a cause tree and provide a solution to every possible cause. (7 Marks)

Question two

- a) State any four network management policies in an organization that will minimize the misuse of the Machakos University LAN. (4 Marks)
- b) Disasters have paralyzed the operations of many organizations around the globe.
 - i. Identify two common disasters likely to occur in Machakos University (2 Marks)
 - ii. Identify best ways of recovery planning for each of the above (2 Marks)
 - iii. State the roles of system admin in ensuring that the methods in (ii) are appropriate and active (2 Marks)
 - iv. Assuming that one of the disaster in (i) above has occurred. Explain how to recover from it. (4 Marks)
- c) Explain why Red Hat is better for financial servers than Windows Server (6 Marks)

Question three

- a) Explain the key tasks of a System Admin in System monitoring (6 Marks)
- b) State the meaning of the following as used in UNIX Operating Systems (6 Marks)
 - i. /bin
 - ii. /etc
 - iii. /usr
 - iv. /sys
 - v. /export
 - vi. /home
- c) Discuss subnetting in an organization using a typical example (8 Marks)

Question four:

- a) Discuss the components of Human computer systems (10 Marks)
- b) Differentiate between a child process and a zombie (2 Marks)
- c) Discuss the steps of adding a host in a virtualcenter (ESX Server 3.5) (8 Marks)

Question five:

- a) Assume that you have been appointed System Admin consultant for Machakos University to help in improving systems performance in the university. Identify any key areas of improvements in the system and explain how to implement each (15 Marks)
- b) Define VMWare and state four its any four components (5 Marks)