



MACHAKOS UNIVERSITY

University Examinations for 2022/2023 Academic Year

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

SECOND YEAR SECOND SEMESTER EXAMINATION FOR

BACHELOR OF SCIENCE (CLOUD COMPUTING)

SCC 240: DESKTOP CLOUD TECHNOLOGY APPLICATION

DATE: 13/4/2023

TIME: 2:00 – 4:00 PM

Instructions:

This paper consists of FIVE questions

Answer question ONE and other TWO questions in this paper

QUESTION ONE-COMPULSORY (30 MARKS)

- a) Define the following terms as used in cloud computing (5 marks)
 - i. A cloud virtual machine
 - ii. Hypervisor
 - iii. Virtualization
 - iv. Cloud account
 - v. Platform independency
- b) Explain THREE roles of a terminal management system (TMS) in a cloud platform (6 marks)
- c) Analyze FOUR benefits that a company may derive from using cloud virtual machines as compared to physical machines (4 marks)
- d) ABC Company has opted to migrate its applications to the cloud. As a consultant, advice the Company on the challenges expected to be faced while managing a cloud environment (5 marks)
- e) Describe **THREE** ways of managing cloud accounts using the command-line interface (6 marks)
- f) Using a suitable illustration describe the cloud computing architecture (4 marks)

QUESTION TWO (20 MARKS)

- a) Explain **THREE** uses of virtual machines in cloud computing (6 marks)
- b) You have been called upon to assist in backing up applications on the cloud for an organization. Describe **THREE** varieties of cloud backup you may advise the company to consider (6 marks)
- c) Describe **FOUR** application areas of cloud desktop applications (8 marks)

QUESTION THREE (20 MARKS)

- a) Analyze **THREE** types of virtual machines used in cloud applications (6 marks)
- b) Outline **SIX** guidelines to be followed when backing up applications and data on the cloud (6 marks)
- c) Using **FOUR** critical examples, explain the implementation of cloud policies in organizations (8 marks)

QUESTION FOUR (20 MARKS)

- a) Explain the process of restoring data and applications from a backup storage in the cloud (5 marks)
- b) A Company intends to set up a desktop virtualization platform on the cloud. Describe **FOUR** components that will be required to achieve this (8 marks)
- c) Outline **SEVEN** components of a cloud security policy document (7 marks)

QUESTION FIVE (20 MARKS)

- a) Compare and contrast between On-Premises and Cloud desktops applications (6 marks)
- b) Explain **THREE** ways of using cloud management tools to manage applications (6 marks)
- c) Analyze **FOUR** reasons why organizations use cloud backup (8 marks)