MURANG'A UNIVERSITY OF TECHNOLOGY

SCHOOL OF COMPUTING AND INFORMATION TECHNOLOGY

DEPARTMENT OF INFORMATION TECHNOLOGY

UNIVERSITY ORDINARY EXAMINATION

2024/2025 ACADEMIC YEAR

SECOND YEAR **FIRST** SEMESTER EXAMINATION FOR
UNDERGRADUATE PROGRAMMES

SIT 107 – INTRODUCTION TO COMPUTER SYSTEM

DURATION: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

1. Answer question ONE and any other two questions.

2. Mobile phones are not allowed in the examination room.

3. You are not allowed to write on this examination question paper.

SECTION A – ANSWER ALL QUESTIONS IN THIS SECTION

QUESTION ONE (30 MARKS)

a) Describe the following terms used in computer systems.   (4marks)
      i)   Algorithm
      ii)   Program
      iii)   Software
      iv)   Information

b) Explain three components of central processing unit.   (6marks)
c) Highlight for security threats facing computers today.   (4marks)
d) Discuss three functions of an operating system in a computer.   (6marks)
e) Outline four challenges of using pirated software.   (4marks)
f) Explain three types of printers that can be used to print document.   (6marks)

SECTION B – ANSWER ANY TWO QUESTIONS IN THIS SECTION

QUESTION TWO (20 MARKS)

a) Discuss how spreadsheets plays critical role in data analysis and decision-making in both academic and business environments. In your discussion include the following;
   i) Any three functions and features that facilitate data analysis.   (3marks)
   ii) Three examples of real-word scenarios where spreadsheets can be used for data –driven decision making.   (3marks)
   iii) Two advantages and two limitations of using excel for complex data analysis compared to specialised software like SQL, R, or Pythem.   (4marks)

b) You are given the dataset in the excel table 1
   Table 1: Marksheet

Student name	CAT 1	CAT 2	CAT 3	FINAL EXAM
John	85	78	92	88
Sarah	90	82	87	95
Alex	76	89	85	80
Mary	88	75	93	90
James	82	84	88	85

Required.

   i) Write an excel formula/function to calculate the average score of each student considering all CATS and exams.
   (4marks)
   ii) Use the if function to create a formula/function that assign "pass" if a student's final exams score is 85 or higher and "fail" if the students' final exam mark is below 85. (3 marks)
   iii) Write an excel function to determine the highest score achieved in CAT 2 among all the students.   (3 marks)

QUESTION THREE (20 MARKS)

a) PowerPoint are useful tools for communication by managers whom selling companies product or services. This made possible by the various functionalities available in power point in relation to this explain.

    i.   How a manager can ensure that the company name and logo appear at the top of every slide describing the process achieving the same.
        (4marks)

    ii.   How the manager can add transition and animation effects to the presentation.
        (4marks)

    iii.   Differentiate between a transition and animation.   (2marks)

    iv.   Highlight 5 principles or roles that should be followed when designing/creating power point presentation.
        (5marks)

b) Explain five types of computer networks.   (5marks)

QUESTION FOUR (20 MARKS)

a) Describe the process of inserting a table of contents in Microsoft word.   (10marks)

b) Differentiate between save and save as in Microsoft word.   (4marks)

c) Discuss three benefits of Google Docs compared to Microsoft word.   (6marks)