



MACHAKOS UNIVERSITY

University Examinations for 2018/2019

SCHOOL OF ENGINEERING AND TECHNOLOGY

DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY

FIRST YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF SCIENCE (INFORMATION TECHNOLOGY)

SIT 100: FOUNDATION OF INFORMATION TECHNOLOGY

DATE: 25/7/2019

TIME: 11.00-1.0 PM

INSTRUCTIONS

QUESTION ONE (30 MARKS)

- a) Describe the various parts of a computer terms (4 marks)
- b) Discuss the classification of computers by:
 - i) speed (5 marks)
 - ii) generations (5 marks)
- c) List **four** types of keys found on a computer keyboard. Give an example of each. (4 marks)
- d) Describe three cables (3 marks)
- e) Describe **six** properties of an operating system (3 marks)
- f) Convert the following binary numbers to their decimal equivalent and then to their hexadecimal equivalent: (6 marks)
 - i) 110110101101_2
 - ii) 0.11110_2
 - iii) 10101100.1110_2

QUESTION TWO (20 MARKS)

- a) With the aid of a well labeled diagram explain the functional parts of a CPU (4 marks)
- b) Troubleshoot the following computer problems, for each problem state at least two possible causes and the solution (6 marks)
- i) The computer is not turning on
 - ii) The monitor is not working
 - iii) The mouse is not working properly
- c) Explain what the following acronyms represent their application areas. (2 marks)
- i) OMR (2 marks)
 - ii) OBR (2 marks)
- d) Describe any three types of computer memory RAM giving an example of each type of memory (6 marks)

QUESTION THREE (20 MARKS)

- a) Distinguish between the following:
- i) warm booting and cold booting (2 marks)
 - ii) web client and web server (2 marks)
 - iii) system software and application software (2 marks)
- b) Identify the parts of the following e-mail address labelled A, B, C, and D (4 marks)

Iat@africaonline.co.ke

↑ ↑ ↑ ↑
A B C D

- c) Describe **five** application areas of a computer (10 marks)

QUESTION FOUR (20 MARKS)

- a) i) Define the term protocol as used in computer networks. (2 marks)
ii) With aid of well labelled diagrams describe three types of network topologies. (6 marks)
- b) Discuss three types of networks. (6 marks)
- c) Describe six flow chart symbols (6 marks)

QUESTION FIVE (20 MARKS)

- a) Describe six internet devices (6 marks)
- b) Describe three types of operating systems (6 marks)
- c) Explain **four** security threats organizations and individuals face when using computers. (4 marks)
- d) Describe security measures that can be used to combat the above problems. (4 marks)