MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018

FIRST YEAR FIRST SEMESTER EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY

MAIN CAMPUS

CIT 107: FUNDAMENTALS OF INFORMATION TECHNOLOGY

Date: 20th February, 2018   Time: 3.30 - 6.30 pm

INSTRUCTIONS:

- Answer ALL questions in SECTION A and any other TWO from SECTION B
- Write your registration number on all sheets of the answer book used.
- Use a NEW PAGE FOR EVERY QUESTION attempted, and indicate number on the space provided on the page of the answer sheet.
- Fasten together all loose answer sheets used.
- Mobile phones and PDAs are NOT allowed in the examination room.

QUESTION ONE

a) Discuss the first and fifth generation of computer systems, highlighting how the various aspects of the computer systems have changed.   **(10 Marks)**

b) State **SIX** basic safety workshop practices, when handling computer systems. .   **(6 Marks)**

c) Explain how computer systems have impact modern enterprises.   **(6 Marks)**

d) Explain any **FOUR** maintenance tasks that can be carried out on computer systems to ensure that it does not fail or performance does not degrade.   **(8 Marks)**

SECTION B: ANSWER ANY TWO QUESTIONS   {20 MARKS EACH}.

QUESTION 2

a) There are two schools of thought relating to development and advancement of computer systems; the first school of thought states that "*Business enterprise activities and functions influence the development and advancement of Computers systems*" while the second school of thought argues that "*Development and advancement of computer Systems technology influences and shapes business enterprise activities and functions*". Discuss the validity of these schools of thought, citing appropriate examples.   **(8 Marks)**

b) Explain the key activities in **POST** process, carried out during the computer start-up.

(4 Marks)

c) Describe how the Laser jet printer process works.   **(8 Marks)**

QUESTION 3

a) Identify any **FOUR** hardware components of a computer system and explain how they influence the performance of a computer system.   **(8 Marks)**

b) A user calls and reports that their computer system is not functioning. Explain the procedure you would user to establish the likely cause. **(6 Marks)**

c) Describe the structure of a magnetic hard disk with the aid of a suitable diagram and explain the functions of each component. **(6 Marks)**

QUESTION 4

a) Describe the process of installing an operating system in a bare-metal (new) computer using CD/DVD drive option. **(6 Marks)**

b) Explain factors that would be considered when purchasing a visual display unit (monitor) for a computer system and how each of the factors impacts display of the monitor. **(6 Marks)**

c) Describe some of the possible indicators of problems with the power supply in a computer system. **(8 Marks)**

QUESTION 5

a) A technician attempts to boot a computer system after carrying out some repair but gets the error message "*Boot Device Missing*". Explain **THREE** likely cause of this problem and possible solutions. **(6 Marks)**

b) Discuss the differences Proprietary operating systems and Open source operating systems, highlighting their advantages and disadvantages. **(6 Marks)**

c) Show that the value does not change when 756_{10} is converted to Hexadecimal number system, followed by conversion to Binary number system and finally to Octal number system and back to decimal. **(8 Marks)**

END OF EXAM