Machakos University College

(A Constituent College of Kenyatta University)
University Examinations 2014/2015

SCHOOL OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF COMPUTING AND INFORMATION TECHNOLOGY
EXAMINATION FOR DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY

INSTALLATION AND CONFIGURATION OF COMPUTERS

Date: 11ᵗʰ December 2014   Time: 8:30 – 10:30 am

INSTRUCTIONS:

Answer question 1 in section A and any other 2 questions in section B.

<u>SECTION A</u>

Question 1 (30 marks):

(a) Write the following abbreviations in full:

      i. FAT

     ii. NTFS

    iii. RAID

    iv. EPROM

     v. ATA

    vi. BIOS   (3 marks)

(b) Mr. Jones wanted to work on a computer and he experiences the following symptoms. As
a computer technician you are required to help Mr. Jones diagnose his computer;

- System beeps on start-up, the fan was running, but there was no cursor on the screen

- He restarted the computer but the system powered up, the fan was running but there
  was no beep or cursor

- After replacing the processor, the system powered up but went off immediately.

      i. Identify the cause of each of the problems mentioned above.   (3 marks)

     ii. Outline a solution for each of the problems identified above   (3 marks)

(c) Define the following terms:

      i.   Dynamic disk   (1 mark)

     ii.   Logic drive   (1 mark)

    iii.   EPROM   (1 mark)

(d) Distinguish between the following terms in relations to hard disks

    iii. Active partition and extended partition   (4 marks)

    iv. EIDE and SATA   (4 marks)

    v. Master and Slave   (4 marks)

(e) Identify two factors to consider when selecting an optical drive   (2 marks)

(f) Briefly explain the functions of any four tools you will require whenever you are doing computer repair.   (4 marks)

SECTION B (Answer any two)

Question Two (20 marks):

a) Distinguish between SRAM and DRAM   (4 marks)

b) Identify the devices that are powered by each of the four different types of power connectors namely 4 pin large, 4 pin small, and 9 pin and 24 pin, found inside a system unit   (4 marks)

c) Mrs. Whites just bought a network card. As an expert in computer installation and configuration, you have been requested to assist.

    i. Explain how you would physically connect the network card.   (2 marks)

    ii. Describe the steps of installing the network card drivers.   (2 marks)

d) Briefly describe the following terms as used in computer hardware: (4 marks)

    i.   Dual-boot

    ii.   Hibernate

e) Distinguish between shut down and log off as used in computers.   (4 marks)

Question Three (20 marks)

a) After purchasing a computer Mr. Karate wanted to confirm the processor speed installed in his computer. Outline the steps he may have followed to achieve this.   (4 marks)

b) Explain the following power problems and recommend a possible solution for each;

    i.   Power surge

    ii.   Blackouts   (4 marks)

c) A part from a correct video display, what else would one use to confirm that a computer is OK?   (2 marks)

d) Distinguish between the three file systems used in windows operating system. (6 marks)

e) Explain the process of how you would make a crashed computer boot from CD (4 marks)

Question Four (20 marks)

a) Define the following terms in relations to computers   (6 marks)

      i.   Form factor

      ii.   Cache

      iii. Chipset

b) Outline the function of a drive controller   (2 marks)

c) Define the term PnP (Plug and Play) as used in computers   (2 marks)

d) Briefly describe the POST process and indicate the instructions in this event   (5 marks)

e) One of the computers in computer lab three was producing sounds of one beep followed by a long beep. Identify the computer problem and suggest a solution to the problem.

(5 marks)

Question Five (20 marks)

a) Peter just bought a HP 1020 printer because his old laser jet printer was no longer working. Describe the process of uninstalling the laser jet printer,   (5 marks)

b) Jerry and his friend were playing a computer game and realized that the image displayed on Jerry's computer was lighter than the display on his friend's computer. Identify how Jerry could rectify this problem.   (4 marks)

c) Identify any one reason why one would need a recovery disk in relations to computer repair.   (2 marks)

d) In reference to computer installation, distinguish between auto-run and PnP.   (4 marks)

e) Identify two hardware devices that must be installed to be used in the computer and one that is a plug and play.   (5 marks)