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 ONE IN EDUCATION

INFORMATION COMMUNICATION TECHNOLOGY

Date: 15/12/2014   **Time: 11:30-1:00 AM**

Instructions
Answer question ONE and any other TWO questions
Don't write on this question paper

Question One

a) Define the term *information Communication Technology*.   (2 marks)
b) Differentiate between OCR and MICR as used in computers.   (4 marks)
c) Outline **four** reasons why a mobile phone is regarded as a computer   (4 marks)
d) List any **four** input/output devices used on an Automated Teller Machine.   (4 marks)
e) You have been requested to advice your manager on different computer Software, briefly explain, giving examples, the **two** classes of software.   (4 marks)
f) Figure 1 show typical features used in word processing programs. State the function of each of the features labeled (i) and (ii).   (4 marks)
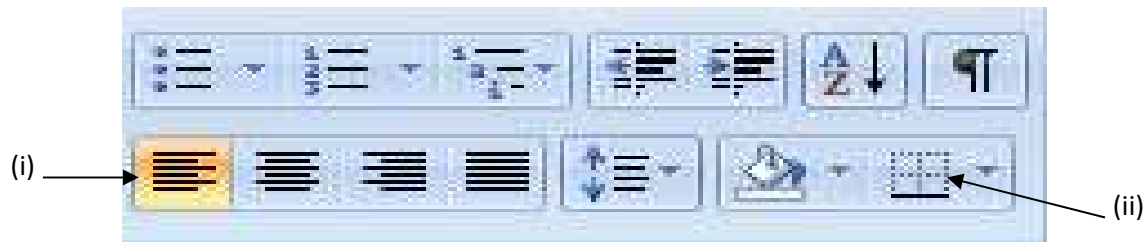

Figure 1

g) Differentiate the following terms in relation to computers:
    i.   Soft copy and Hard copy
    ii.   Save and Save As

     iii.   Move and copy   (6 marks)

h) Outline **four** uses of the internet.   (2 marks)
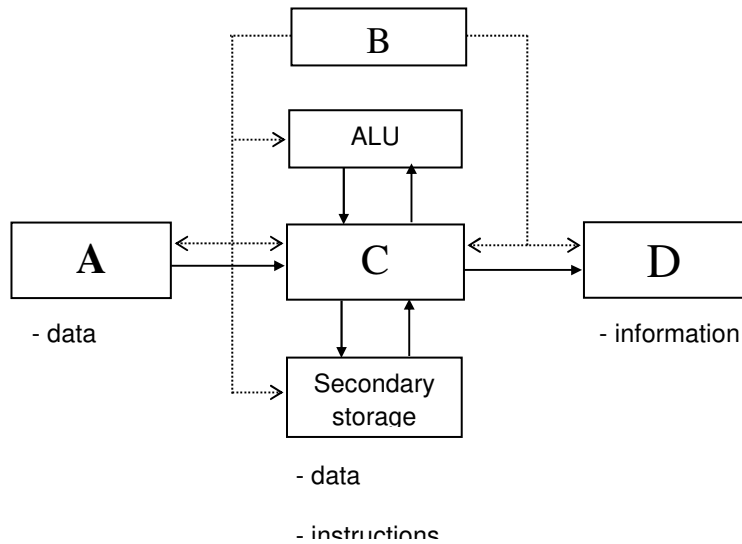
Question Two

a) In word processing, *indent* means moving the text away from the margin. Describe **two** types of indents.   (4 marks)

b) Assuming a window based environment, outline **two** ways that could be used to load a word processing program.   (4 marks)

c) Differentiate between the following terms as used in word processing:
     i.   Headers and Footers
     ii.   Landscape and portrait orientation   (4 marks)

d) The table below was prepared by a word processing program; identify four formatting features used to on it.   (4 marks)

BAOBI PARK						
GAP ANALYSIS PROGRAMME						
30th and 31st March 2014						
DAY	**8:30 – 10:00**		**10:30 – 12:00**		**2:00 -4:00**	
Friday	Presentation	HB	Group Work	HB	Group Work	
Saturday	Plenary		Group Work		Plenary	

e) A student from MUC wants to create a folder on the desktop to store the above table, state the procedure he/she would use.   (4 Marks)

Question Three

a) Mutiso is a businessman from Kitui town and intends to automate his business. Describe the factors he would consider before purchasing the computers to use.   (6 Marks)

b) Outline **two** advantages of laptops as compared to desktop computers.   (2 marks)

c) Below is a block diagram of a digital computer system. Describe the function of the parts labeled A, B, C, and D.   (8 marks)

```
                    ┌──────────────┐
          ┌ ─ ─ ─ ─ │      B       │ ─ ─ ─ ─ ┐
          ┊         └──────────────┘         ┊
          ┊            ┌────────┐            ┊
          ┊       ┌─ ─▷│  ALU   │            ┊
          ┊       ┊    └────────┘            ┊
┌──────────────┐  ┊  ┌──────────────┐  ┌──────────────┐
│      A       │◁─┊─▷│      C       │◁─ ┊ │      D       │
└──────────────┘◀───▶└──────────────┘◀──▶└──────────────┘
    - data           ┌──────────────┐    - information
          └ ─ ─ ─ ─ ▷│  Secondary   │
                     │   storage    │
                     └──────────────┘
                        - data
                        - instructions
```

    ─────▶ Flow of data

d) The   ················▷ Flow of control   computer has a primary memory which it uses while processing. Justify the need for secondary storage.

(4 marks)

Question Four

a) Explain each of the following terms as used in computer software:
   i. Compatibility;
   ii. Portability. (4 marks)

b) An export company has decided to computerize their operations; they have decided to buy computer packages instead of developing their programs. Describe **three** benefits they are going to realize from their decision. (6 Marks)

c) Imagine you are a computer consultant, a client approaches you to advise him/her on the type of operating system to use on his/her computer:
   i. Describe the term *operating system*. (2 marks)
   ii. Describe **two** types of operating system according to the number of users it supports. (4 marks)

d) Outline **four** functionalities/operations of a mouse. (4 marks)

Question Five

a) Describe **two** types of computer networks based on geographical coverage. (4 marks)

b) With the aid of a diagram, explain the *star* computer network topology. (4 marks)

c) Describe the counter measures to the following computer crimes
   i. software piracy;
   ii. computer virus;
   iii. Unauthorized access. (6 marks)

3

d) Describe the following basic principles of data/information systems in relation to computer security;
    i.   Confidentiality
    ii.   Integrity
    iii.   Authenticity   (6 marks)