2920/101
INTRODUCTION TO INFORMATION
COMMUNICATION TECHNOLOGY AND ETHICS
July 2011
Time: 3 hours

THE KENYA NATIONAL EXAMINATIONS COUNCIL

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY

MODULE I

INFORMATION COMMUNICATION TECHNOLOGY AND ETHICS

3 hours

INSTRUCTIONS TO CANDIDATES

You should have the following for this examination:

    Answer booklet;

Answer any FIVE of the following EIGHT questions.

This paper consists of 5 printed pages.

**Candidates should check the question paper to ascertain that all the
pages are printed as indicated and that no questions are missing.**

1. (a) (i) State **three** benefits that can be realised by an organisation through the implementation of procurement policies for its computer hardware.

(3 marks)

(ii) Outline **two** issues addressed by the Computer Misuse Act. (2 marks)

(b) (i) Define the term *life skills*. (2 marks)

(ii) Assuming that you have acquired a job as a sales person for an organization. Your work involves travelling to different regions selling company products and services. Explain **five** *life skills* that you should possess in order to successfully carry out your duties. (5 marks)

(c) (i) Differentiate between a *microcomputer* and a *minicomputer*. (4 marks)

(ii) Distinguish between *general* and *special purpose* computers, giving one application area in each case. (4 marks)

2. (a) A firm intends to recruit *a database administrator*, *a network administrator* and *a computer operator* in its ICT department. Outline **two** roles of each of these ICT personnel in the company. (6 marks)

(b) State **two** characteristics of each of the following generations of computers in terms of hardware technology:

(i) first generation;

(ii) second generation. (4 marks)

(c) A recent audit carried out in Maputu Company Limited revealed that the company does not have an ICT policy.

(i) Explain the use of such a document in an organization. (2 marks)

(ii) Assuming that you are to develop such a policy for the company, explain **three** ways in which you would ensure that the content of the document is acceptable and practiced by everyone in the organisation. (6 marks)

(iii) A customer with the company has found out that her confidential information had been leaked out. Explain the legislation that the company workers may be violating. (2 marks)

3 (a) (i) Classify the following storage media into either *magnetic* or *optical*: *Hard disk, WORM disk, credit card, DVD-RW*

(2 marks)

(ii) Outline **four** challenges posed by the introduction of ICT in schools.

(4 marks)

(b) (i) A hardware shop intends to acquire a printer to be used for printing invoices in triplicate using carbon paper. Suggest the most appropriate type of printer that is suitable for the task justifying your answer.

(3 marks)

(ii) State **three** circumstances under which a plotter may be preferred over a printer. (3 marks)

(c) A survey conducted by a researcher established that many companies believe that the development of a *corporate social responsibility* strategy can deliver real business benefits.

(i) Explain the meaning of the term *corporate social responsibility*. (2 marks)

(ii) Outline **three** activities that Zopac, a company dealing in sales of computers to schools, is likely to engage in when attempting to implement such a strategy. (3 marks)

(iii) State **three** benefits that such a strategy is likely to bring to the company. (3 marks)

4. (a) (i) State **four** symptoms of *stress*. (2 marks)

(ii) Job, a student in a Technical Institute preparing for the end of stage examination, has of late been feeling overwhelmed by long list of assignments and other obligations. Explain the *life skill* he may require in order to overcome this problem. (3 marks)

(b) Describe **two** ways in which emotions can influence behaviour. (4 marks)

(c) (i) Name a network topology which contains a central node for message switching between the attached computers. (1 mark)

(ii) Explain **two** weakness of the topology in (i). (4 marks)

(iii) Describe **three** types of networks based on geographic scope. (6 marks)

5. (a) An organisation intends to set up *voice mail* services in order to support its clients countrywide.

(i) Explain the term *voice mail*; (2 marks)

(ii) State **four** ways in which the organisation will benefit from such a service. (4 marks)

(b) Distinguish between *typical* and *custom* software installation. (4 marks)

(c) (i) Outline **four** ways in which electronic damages associated with fluids can be minimised in a laboratory. (4 marks)

(ii) Explain one way through which each of the following may contribute towards realisation of ergonomic standards:

    I.   Computer chairs;

    II.   monitor screen;

    III. work schedule. (6 marks)

6. (a) Outline **two** positive ways in which ICT has affected secretarial services in organizations. (2 marks)

   (b) A retail shop intends to install a bar code system at the point of sales terminal. Explain **two** benefits that the shop is likely to gain from this system. (4 marks)

   (c) (i) Explain **three** sources of work related conflicts at place of work. (6 marks)

      (ii) Assuming that you have just been employed as a manager of a company and within your first few days in the office, you noticed that the production levels are below expectation. Explain **four** factors that may indicate the existence of conflict between workers and management that could have led to decreased production. (8 marks)

7. (a) Explain the function for each of the following software:

    (i) utility programs;

    (ii) compilers. (4 marks)

   (b) (i) Describe each of the following input devices giving a suitable application area:

      I.   OCR;

      II.   OMR. (4 marks)

     (ii) Brispak, an upcoming auditing company, has adopted *telecommuting* as its mode of operation.

      I.   Define the term *telecommuting*. (2 marks)

      II.   Outline **four** negative effects the company is likely to face by adopting this approach. (4 marks)

   (c) With the aid of a block diagram, represent the basic elements of a computer system, indicating clearly the flow of data and control signals. (6 marks)

8. (a) State **four** advantages of *tailor made* software over *off-the-shelf* software. (4 marks)

   (b) Distinguish between *integrated software* and *software suites*. (4 marks)

(c) Outline **four** differences between *primary* and *secondary storage* in a computer system. (4 marks)

(d) A school bought refurbished computers which had software already installed. The computer technician decided to format the computer hard disks and reinstall the software in all the computers.

    (i) Outline **two** reasons that could be have prompted the technician to take this action. (2 marks)

    (ii) Describe the stages that the technician should follow in order to install the operating system successfully. Assume the hard disks had very large disk spaces. (4 marks)

    (iii) During the installation of an operating system in one of the computers, the technician observed the following error message;

        "Searching for Boot Record from CDROM...OK
     Press any key to boot from CD.....Error loading operating system_"

    Explain **two** possible causes of this error. (2 marks)