UNIVERSITY EXAMINATIONS

2013/2014 ACADEMIC YEAR

FOR THE DIPLOMA IN INFORMATION TECHNOLOGY

COURSE CODE:DIT 050

COURSE TITLE: INFORMATION TECHNOLOGY ESSENTIALS

DATE: 12TH MAY, 2014   TIME: 9:00A.M.-11:00A.M.

INSTRUCTIONS

Answer Question One and any other two

Question one is compulsory

Question one (24 Marks)

    (a) i Define Information Technology   [2 marks]

        ii Explain the difference between Information Technology and Computer Science [2 marks]

    (b) Define the following terms
- (i) On board cache memory
- (ii) Network operating system
- (iii) Computer virus
- (iv) POST
- (v) Secondary memory

                                                            [5 marks]

    (c) Explain main functions of Information and Communication Technology in each of the following institutions setup

      (i) Transport

      (ii) Education

      (iii) Health facilities

      (iv) Banks

      (v) Registration of Person   [5 marks]

    (d) Give four ways of protecting information in computers.   [4 marks]

    (e) Explain 3 benefits achieved by connecting computers to form a network.   [3 marks]

    (f) (i) Name 2 features on a mobile phone that make it equate a computer   [1 mark]

      (ii) "Listening is different from hearing". Discuss this statement while bringing out the difference for communication skills   [2 marks]

Question Two [18 Marks]
 (a) Define the following terms
- (i) Bit
- (ii) Byte
- (iii)Data
- (iv)Word

                                                    [4 marks]
 (b) (i) Why do computers use only two digits, "0" and "1" to store and manipulate data? [2 marks]

(ii) Why do people process data? [2 mark]

(c) Explain the term "relevancy" in data processing to get information [2 marks]

(d) Convert the following binary numbers to decimal
    (i) 1101101_2
    (ii) 0111010_2

[4 marks]

(e) Give four qualities of good information [4 marks]

Question Three [18 Marks]

(a) What is a computer network? [4 marks]

(b) State 3 advantages and disadvantages of a computers network [6 marks]

(c) Describe the main functions of an operating system and name some common operating systems
[4 marks]

(d) List down any four issues an Information Technology department in a firm would be responsible for. [4 marks]

Question Four [18 Marks]

(a) Which part of the computer memory is used to start up the computer and do some basic diagnostic [2 marks]

(b) Laptop computers and mobile phones are mostly known to provide wireless connectivity network. Name any three interfacing features on these devices that provide this connectivity.
[3 marks]

(c) A desktop computer in the manager's office has become too slow during operations. Suggest an action to be taken in order to improve its performance [3 marks]

(d) Distinguish between the following terms:

    (i) Internet and Extranet
    (ii) Digital and analogue

[4 marks]

(e) State the meaning of e-Commerce [2 marks]

(f) Give two, for each, advantages and disadvantages of On-line purchasing [4 marks]

Question Five [18 Marks]

Read the following scenario and use it to answer Question Five

Prof. Richard Mibeyi is the new Principal of a new Kanduyi University College, which is a Constituent College of Kibabii University. He has been posted here as the first principal of the college from WECO, a small college situated in the interior side of Kakamega forest training mainly business, religion and social studies for business oriented degree courses. Prof. Mibey studied Botany up to Ph.D. level at Dar-es-slam and Stanford Universities in the early seventies and rose through all ranks gradually until he reached the status and titles he dons today. He embraces the use of computers in research and general application for office automation so much that he wants Kandui University College not to be left behind with the great trends ICT is taking globally. However, Prof. Mibey lacks skills and knowledge on Information and Communication Technology to make him understand the current trends in IT. He is therefore going to rely on you as an expert in ICT, having graduated with a Diploma in Information Technology from Kibabii University College.

(a) State 4 main benefits to be achieved by the college in various departments putting in mind the clients/customers of the university college and the new trends in IT. [4 marks]

(b) In what way will the Principal manage to exchange data and information between different computers and make the only printer , HP LaserJet 8000N in the reprography office be used by all computers in the college? [4 marks]

(c) Currently, the college is having financial hitch to spend on software like the Operating Systems; advice the Principal on how to acquire the O/S without using money. [2 marks]

(d) The Principal on the other hand is worried of any eventuality occurring that might lead to loss of data and information from computers, advice him on computer systems security measures, including both physical and software to handle such situations. [4 marks]

(e) What is a computer virus? What advice would you give in your report to the Principal to protect computers from viruses? [4 marks]

UNIVERSITY EXAMINATIONS

2013/2014 ACADEMIC YEAR

1ST YEAR 1ST SEMESTER EXAMINATIONS

FOR THE CERTIFICATE IN INFORMATION TECHNOLOGY

COURSE CODE: ITC 010

COURSE TITLE: INTRODUCTION TO INFORMATION TECHNOLOGY

DATE: 14TH MAY, 2014   **TIME: 9:00A.M. – 11A.M.**

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INSTRUCTIONS

Answer Question One and any other Two

Question one is Compulsory

Question One (24 marks)

(a) Define the following terms:
    (i) Data
    (ii) Information
    (iii) Hardware
    (iv) Software
    (v) Information relevancy

                                                        [5 marks]

(b) Explain any three characteristic of a computer [3 marks]

(c) Define Information Technology [2 marks]

(d) A Computer system is a combination of various components that captures input from the user, processes the data and displays output in form of information. Which of the following is not part of these components

    A. Hardware B. Software   C. Computer desk   D. Firmware E. Human ware [2 marks]

(e) Explain the differentiate between system software and application software [2 marks]

(f) State four functions of an operating system [4 marks]

(g) A Modem is a device used for communication in computers. How does it achieve this communication? [3 marks]

(h) Explain to show how a Modem is both an input and output device [3 marks]

Question Two (18 marks)

(a) What is a Computer Network [3 marks]

(b) Distinguish between a Local Area Network and Wide Area Network [4 marks]

(c) Explain four ways on how to protect data and information in a Network setup [4 marks]

(d) Give four benefits of a Computer Network [4 marks]

(e) What is wireless connection? What features are needed on a computer to achieve wireless connection? [3 marks]

Question Three (18 marks)

(a) Explain the difference between digital signal and analog signal in data communication [4 marks]

(b) When connecting a computer on power for the first time, which part of the computer should you be concerned with before switching on the computer and why? [4 marks]

(c) Mercy switched on her computer to type a document, but on starting; the computer made a continuous sound in short intervals, thus Tiiiiii! Tiiiii without booting! Explain which components on the computer should you start diagnosing and why? [4 marks]

(d) Explain the term "Garbage In Garbage Out" (GIGO) [1 mark]

(e) In your own understanding elaborate the work of a Computer Technician [2 marks]

(f) When applying to be considered for a position in a company, give the name of the document that is accompanied on application with detailed information about yourself [2 marks]

(g) What titles should you use to address the person you are applying to? [1 mark]

Question Four (18 marks)

(a) Explain how Information and Communication Technology has contributed to the improvement in services delivery in the following sectors.
   (i)   Transport and communication
   (ii) Learning institutions e.g. universities
   (iii)Money exchange bureaus
   (iv)Trading industry
   (v) Social forums [10 marks]

(b)   Give 4 notable features that distinguishes a Laptop from a Desktop [4 marks]

(c)   List the advantages and disadvantages on using e-Mail. [4 marks]

Question Five (18 marks)

(a) List any **three** ways of dealing with a virus on a computer.   [3 marks]

(b) Explain the functions performed by the following units in a computer

    (i) The Control Unit (CU)

    (ii) Arithmetic and Logic Unit (ALU)

    (vi) Main Memory

    (vii) Input Devices

    (viii) Output Devices   [10 marks]

(c) What do understand by the term POST in computing   [2 marks]

(d) Outline POST procedures when the computer is switched on   [3 marks]