CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

APPLIED INFORMATION AND COMUNICATION TECHNOLOGY   **9713/01**

Paper 1   **October/November 2008**

1 hour and 15 minutes

Candidates answer on the Question Paper.

No additional materials are required.

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name on all the work you hand in.
Write in dark blue or black pen.
Do not use staples, paper clips, highlighters, glue or correction fluid.
You may use a pencil for any diagrams, graphs or rough working.
DO **NOT** WRITE IN ANY BARCODES

Answer **all** questions.

The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of **11** printed pages and **1** blank page.

[Turn over

Scenario 1
Question 1

East African Media Ltd owns the Nairobi Times newspaper. Many of its reporters work in towns such as Nakuru, Naivasha and Kisumu which are far away from the editor's office in Nairobi. They all have mobile phones and laptops and are therefore able to communicate their stories to the editor's office.

East African Media Ltd uses the latest technology to print the newspaper. It uses computerised plate making and typesetting techniques. It is hoped eventually to have a printing press in Mombasa but this would require the use of facsimile transmission. Unfortunately, many publishers have found that a phone connection is inadequate considering the volume and the required accuracy of the data.

Scenario 2
Questions 2 and 3

Rahman Computers have decided to close down the major stores where they sell their computers. They will be replacing these with a warehouse. Customers will place their orders on-line through Rahman Computers' website giving their personal details.

There will need to be several office workers who will process orders. The orders will then go to the warehouse where workers will find the hardware which has been ordered. They then put them on a conveyor belt which takes them to the loading bay. Other workers in the loading bay then take the hardware off the conveyor belt and load the lorries. These are then used to deliver the items to the customer's homes.

As well as this the company has decided to operate a call centre of computer technicians. Customers will be able to phone the centre if they have a problem with their machines and the technicians will help rectify the problem.

Scenario 3
Question 4

Mr Mustapha is the head teacher of a large school. The school currently has a computer network but he wants to have a new system which will allow the school to keep student personal records and test marks. He also wants to have a system which will let the students have the opportunity to use computers to improve their learning. He has invited Joanne Reeves, a systems analyst, to design and create the new system.

Scenario 4
Question 5

Kamran Hussein is the manager of a firm of accountants. He has decided that the cost of using the large office block his firm rents is too much. He intends to move to a smaller building with just two or three 'interview' rooms. He and the five other accountants will be working from home and just come into the new office when they have to meet clients. All accountants will be connected to the office using the Internet so that files of information can be transmitted to the computer in the office.

Kamran is a little concerned that the Internet may not be a secure enough means of transmitting information. He thinks a better way may be for the accountants to either send the information through the post or bring it into the office using a removable medium. The total amount of information which will be placed on these media will be no more than 100Mb. Kamran has been told that the different media he could use for the accountants to store the data they will bring into the office or post are Blu-ray, DVD RAM or memory sticks.

Kamran wants the group of accountants to have regular meetings without everyone having to come into the office. He has yet to decide whether phone conferencing or video conferencing would be the better method.

Each accountant will have their own PDA.

The firm wants to advertise its services using a computer to produce the advertising materials.

Refer to scenario 1 when answering question 1

1 **(a)** Describe how the reporters would produce their stories and how they would send them to the editor's office.

....

....

....

....

....

.... [3]

(b) Describe the role of computers in plate making and typesetting.

....

....

....

.... [2]

(c) Describe **one** possible method of facsimile transmission which would overcome the problem of phone lines.

....

....

....

....

....

.... [3]

Refer to scenario 2 when answering questions 2 and 3

2 **(a)** The company has to follow data protection rules when storing data about its customers. Describe **four** rules which the company must obey.

....

....

....

....

....

....

....

.... [4]

(b) Explain what could happen if the company did not have to obey data protection rules.

....

....

....

....

....

.... [3]

(c) Describe what effect the introduction of the system will have on the employment prospects of the employees at the major stores. Include the changes some employees may have to accept.

....

....

....

....

....

....

....

....

....

....

.... [6]

3 (a) Rahman computers want to introduce robots to pick up the hardware at the end of the conveyor belt and load the lorries. Describe how a robot would be used in this process.

....

....

....

....

....

....

.... [4]

(b) Give **four** reasons why they would want to use robots.

....

....

....

....

....

....

.... [4]

(c) Because there could be a danger of the robots overheating the company wants to introduce a computerised air conditioning system. Describe how this system would work.

....

....

....

.... [2]

Refer to scenario 3 when answering question 4

4 **(a)** After Joanne has designed the new system she will want to develop and test it.
Describe the testing strategies she could use.

....

....

....

....

....

.... [3]

(b) Mr Mustapha wants to see teachers use computers in a Computer Aided Learning
environment. Describe how this approach can help students and teachers with learning
and assessment.

....

....

....

....

....

....

....

....

....

.... [6]

(c) Joanne will need to produce technical documentation. Describe the **two** types of technical documentation she will produce.

....

....

....

....

....

....

....

....

....

.... [6]

(d) Name the medium which would be most appropriate to store the students' personal records and test marks and explain how the data would be stored.

....

....

....

....

....

....

....

....

.... [5]

Refer to scenario 4 when answering question 5

5 **(a)** Discuss the size of the storage media that Kamran is considering. Include the uses they are normally put to and suggest the most appropriate medium for Kamran's purpose.

....

....

....

....

....

....

....

....

....

....

....

[6]

(b) Describe how video and phone conferencing operate. Include the hardware requirements for each system.

....

....

....

....

....

....

....

....

....

....

[6]

(c) Explain how PDAs will benefit the accountants in their day to day working routines.

....

....

....

....

....

.... [3]

(d) Discuss the effect of working at home rather than working in the office from the point of view of the firm and the accountants.

....

....

....

....

....

....

....

....

....

....

....

.... [7]

(e) Discuss the various methods the accountants could use for advertising their services.

....

....

....

....

....

....

....

....

....

....

....

....

.... [7]

BLANK PAGE