UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
General Certificate of Education Advanced Level

CANDIDATE NAME	

CENTRE NUMBER						CANDIDATE NUMBER				

APPLIED INFORMATION AND COMMUNICATION TECHNOLOGY   **9713/03**

Paper 3   **May/June 2008**

                                                               1 hour 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.

UNIVERSITY *of* CAMBRIDGE
International Examinations

[Turn over

Scenario 1
Questions 1, 2 and 3

Rameses III hospital in Cairo is a modern building with a good ICT network. They use the comp... system for monitoring the health of patients in Intensive Care Units (ICUs). The computers are als... used to carry out medical diagnosis using an expert system. A lot of its drugs are supplied by the Pyramid pharmaceutical company. This company carries out research and development to produce new drugs. Once the final drug is approved there are many stages before production. This requires the company to use project management. Pyramid also carries out safety training for all its employees. Computer Aided Learning (CAL) is used with the help of interactive DVDs.

Scenario 2
Questions 4, 5 and 6

Jollywood is a large music retailer. It has decided to offer on-line shopping to sell its music CDs, DVDs and other products. They will use their website www.jollywood.org to allow customers to log on, choose and buy their goods. These goods are sent out from Jollywood's central warehouse which is computerised. Jollywood have had market research carried out which suggests that they should no longer sell traditional HiFi systems that use CDs and tapes. They will need to stock items which use state of the art technologies.

As well as this, the company has decided to operate a call centre providing an information service to customers. Customers will be able to phone the centre if they have a problem with a product or other queries and the operators will advise them.

Scenario 3
Question 7

Science Fiction writers over the years have made many predictions which have proved to be accurate, for example robotics and monorails. The only major modern advance never predicted by these writers was the Internet.

Refer to scenario 1 when answering questions 1, 2 and 3.

For
iner's

1 **(a)** Describe how the monitoring system in an ICU would determine whether a doctor o
nurse needs to be warned about the patient's condition.

....

....

....

....

....

....

....

.... [4]

(b) What are the advantages of using the computer patient monitoring system?

....

....

....

....

....

....

.... [3]

(c) Describe how the Expert System would be used to help diagnose an illness.

....

....

....

....

....

....

....

.... [4]

(d) Describe the advantages and disadvantages of using an Expert System in this application.

....

....

....

....

....

....

.... [3]

For
iner's

2   (a) Describe how computers are used by Pyramid in their research.

....

....

....

....

....

....

....

....

....

....

.... [6]

(b) How could appropriate software be used by the company to determine the selling price of the drug?

....

....

....

.... [2]

(c) How are Gantt charts and other project management tools used to ensure the project meets its objectives and is completed on time?

....

....

....

....

....

....

[4]

3 (a) What are the advantages of Pyramid using Computer Aided Learning (CAL) over traditional classroom-based training methods?

....

....

....

....

....

....

....

....

....

.... [5]

(b) Explain the disadvantages of using CAL.

....

....

....

....

....

.... [3]

Refer to scenario 2 when answering questions 4, 5 and 6

For
iner's

4 **(a)** What advantages does Jollywood's move to online shopping offer the customer and th
music retailer?

....

....

....

....

....

....

....

.... [4]

(b) Describe the features you would expect to find on Jollywood's web site.

....

....

....

....

....

....

....

....

.... [5]

(c) Each item at the warehouse is marked with a bar code. Describe how an au[.....] stock control system would be used.

....

....

....

....

....

....

....

....

....

.... [5]

(d) Explain how a "just in time" system could be used by Jollywood at the warehouse.

....

....

....

....

....

.... [3]

5   (a) Describe how market research would have been carried out for Jollywood.

....

....

....

....

....

....

....

....

.... [5]

    (b) Describe the recent advances in technology which have led to music CDs being replaced by other media.

....

....

....

....

....

....

.... [4]

For
iner's

6 **(a)** Jollywood have bought all the necessary ICT hardware to create the call centre. Describe the specialist software which will be needed and explain why it is required.

....

....

....

....

....

....

....

....

....

.... [5]

(b) Describe how computers would be used to support the call centre operators when dealing with customer enquiries.

....

....

....

....

....

....

.... [4]

(c) It has been decided to employ more disabled operators at the call centres. Describe what features the computer system should have to help these disabled operators.

....

....

....

....

.... [3]

Refer to scenario 3 when answering question 7

7 Describe how the Internet has quickly grown since its introduction in the 1990s.

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

....

.... [8]

BLANK PAGE