

General Certificate of Education
January 2006
Advanced Level Examination



INFORMATION AND COMMUNICATION TECHNOLOGY
Unit 4 Information Systems within Organisations

ICT4

Tuesday 24 January 2006 9.00 am to 11.00 am

For this paper you must have:

- a 16 page answer book

Time allowed: 2 hours

Instructions

- Use blue or black ink or ball-point pen. Use pencil only for drawing.
- Write the information required on the front of your answer book. The *Examining Body* for this paper is AQA. The *Paper Reference* is ICT4.
- Answer **all** questions.

Information

- The maximum mark for this paper is 90.
- The marks for questions are shown in brackets.
- You will **not** gain credit for the use of brand names in your answers.
- You are reminded of the need for good English and clear presentation in your answers. Question 9 should be answered in continuous prose. The Quality of Written Communication will be assessed in this answer.

Answer **all** questions.

1 Explain what is meant by the term *risk analysis*. (3 marks)

2 One way of classifying information is by its source, examples of which are internal, external, primary or secondary.

State **four** other ways of classifying information, giving an example of each classification stated. (8 marks)

3 When developing ICT systems, project teams should follow a formal method.

(a) Give **three** reasons for using a formal method. (3 marks)

(b) A good ICT team requires a team leader to lead it to success, for example by ensuring that everyone in the team keeps to the standards set, by following the formal method being used.

Explain **three** other tasks that the team leader should perform to help the team achieve success. (6 marks)

4 When an organisation introduces a new information system changes may occur that affect employees.

State **four** changes that may occur and, for each one, explain a possible effect on employees of the organisation. (8 marks)

5 An organisation has recently produced a new code of practice for its ICT users. All such users must sign to say they will abide by its contents.

(a) State **four** topics that should be covered in an ICT code of practice. (4 marks)

(b) The organisation wants to inform all its staff that they need to sign this new code of practice within the next three weeks.

Give **four** methods by which the organisation could inform all the staff and, for each one, state how it would be effective. (8 marks)

Turn over for the next question

- 6 An ice-cream manufacturer is considering introducing frozen yoghurts to its product range. A market research company is to find out if there is a market for the product by asking a sample of people in city centres the same set of questions.

A paper questionnaire, like the example in **Figure 1** (shown opposite), will be filled out with the responses given by each person. Some responses are written as a cross in a box, or as a circle around a number or letter. Other responses will be written down as free text, recording the comments made by the interviewees.

The responses recorded on the questionnaires will be processed by an ICT system, and summary information will be produced for the ice-cream manufacturer.

(a) For the free text responses:

- (i) suggest a suitable data capture method; *(1 mark)*
- (ii) describe a suitable method for trying to ensure the accuracy of the captured data. *(2 marks)*

(b) For the crossed or circled responses:

- (i) suggest a different data capture method that would be suitable for these responses; *(1 mark)*
- (ii) describe a suitable method for trying to ensure the accuracy of the captured data. *(2 marks)*

(c) For the information that will be presented to the ice-cream manufacturer, suggest and justify a suitable output format for:

- (i) summarising the free text responses; *(2 marks)*
- (ii) summarising the crossed and circled responses. *(2 marks)*

(d) Explain why the market research company has chosen to use an ICT system to process the responses. *(2 marks)*

Figure 1

Put a cross in the box - ☒

8 Show Card D and ask the following questions:

8a I would buy this product:

	Never
	Once, to try
	Monthly, as a treat
X	Weekly
	More often

8b Flavours I would like to see:

	Vanilla
X	Strawberry
	Peach
	Lemon
X	Raspberry
	Black Cherry
X	Other

Please give suggestions:

Apricot

9 Show Card E, a proposed magazine advertisement for the product.

9a What does this make you think about?

9b Would it make you buy the product?

Yes ☒ No ☐ Maybe ☐

10 How many adults (18+) in your household? (circle)

1 2 3 4 more than 4

7 Information System Security Policies cover issues to do with the secure use of information systems, as well as issues surrounding the security of the data held within them.

- (a) A typical Information System Security Policy includes the procedures needed to protect the systems and data.

Give **three** of these procedures, explaining how each one is used to protect systems and data.

(6 marks)

- (b) Name **two** pieces of legislation that should be considered when writing an Information System Security Policy.

(2 marks)

- (c) State **four** factors that should be considered when writing an Information System Security Policy.

(4 marks)

8 (a) Using an example, explain what is meant by a *data processing system*.

(3 marks)

- (b) Using an example, explain what is meant by an *information system*.

(3 marks)

9 A long-standing national chain of shoe shops has built up its information systems one at a time and without an overall plan. It is now having difficulty getting these systems to work together effectively and has therefore decided to create a Corporate Information Systems Strategy.

Discuss the influence of the following factors when planning a Corporate Information Systems Strategy:

- the structure of the organisation;
- information flow around the organisation;
- personnel in the organisation.

The Quality of Written Communication will be assessed in your answer.

(20 marks)

END OF QUESTIONS

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