

**GENERAL CERTIFICATE OF SECONDARY EDUCATION
 INFORMATION AND COMMUNICATION TECHNOLOGY**

Paper 3 (Foundation Tier)

THURSDAY 17 JANUARY 2008

Morning
 Time: 1 hour

Candidates answer on the question paper
Additional materials: No additional materials are required



Candidate Forename

Candidate Surname

Centre Number

Candidate Number

INSTRUCTIONS TO CANDIDATES

- Write your name in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use blue or black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer **all** the questions.
- Do **not** write in the bar codes.
- Do **not** write outside the box bordering each page.
- Write your answer to each question in the space provided.

INFORMATION FOR CANDIDATES

- The number of marks for each question is given in brackets [] at the end of each question or part question.
- The total number of marks for this paper is **60**.
- No marks will be awarded for using brand names of software packages or hardware.

FOR EXAMINER'S USE	
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11	
12	
TOTAL	

This document consists of **8** printed pages.

1 A new computer system is to be introduced.

(a) Underline **two** ways of collecting information about the current system.

designs **filters** **graphs**
interviews **questionnaires** **verification**

[2]

(b) Underline **two** ways of introducing the new computer system.

direct changeover **documenting** **observations**
parallel running **tele-working** **validating**

[2]

2 Tick **one** box in each row to show the **most** suitable software application for the task shown.

	Desktop Publisher (✓)	Database (✓)	Spreadsheet (✓)	Presentation (✓)
Making interesting slideshows				
Making a computer model				
Creating a leaflet mixing text and pictures				
Carrying out complex searches on data				

[4]

3 Tick **one** box in each row to show the type of computer technology used for the task shown.

	Microprocessor (✓)	Mainframe (✓)
Used in a mobile phone for making a call.		
Used in a bank for batch processing account details.		
Used in a desktop computer at home.		
Used in a computer that supports thousands of users at once.		

[4]

4 Tick **one** box in each row to show which input method would be used for each task.

	OMR (✓)	OCR (✓)	MICR (✓)	Bar code reader (✓)	Touch screen (✓)
Reading bank details from a cheque.					
Importing a printed page of text into a word processor.					
Choosing an option at a fast food restaurant.					
Reading the details of a book at a library checkout desk.					
Reading product codes from a cereal packet.					

[5]

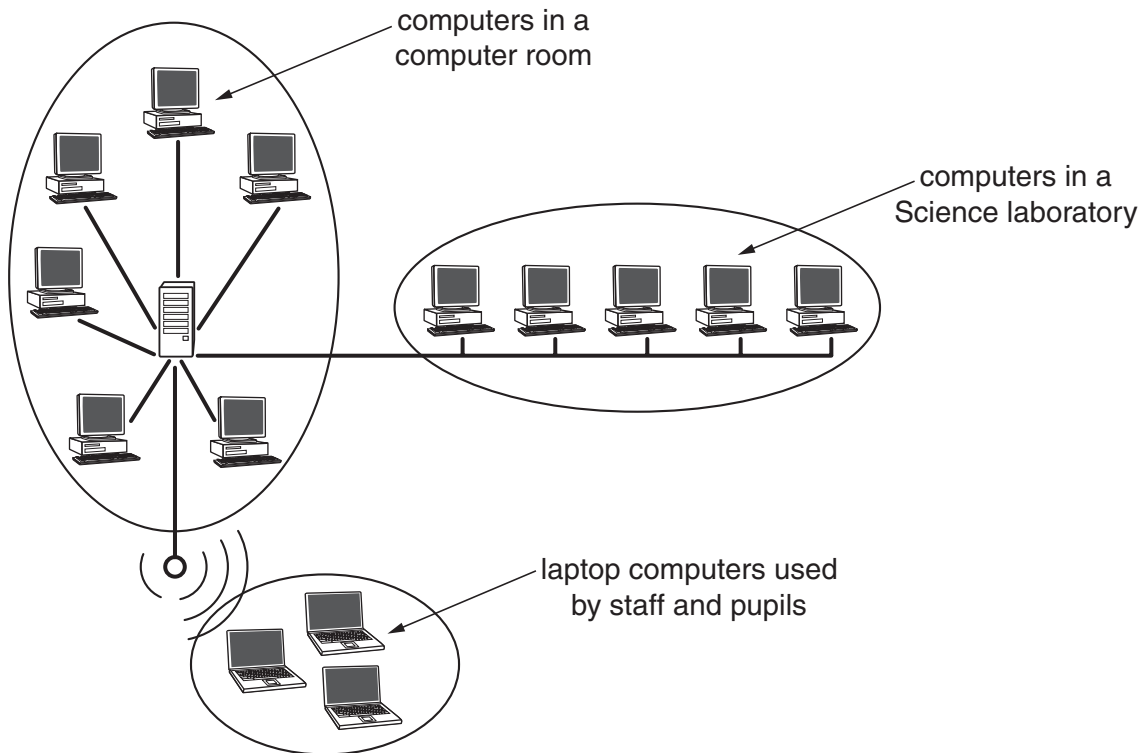
5 Put the steps of the systems cycle into the correct order.

Steps 3 and 6 have been done for you.

Monitoring	
Implementation	
Maintenance	6
Design	
Development & Testing	3
Investigation & Analysis	

[4]

6 A school's large network is shown below.



- (a) What type of computer network topology connects the computers in the computer room?
 [1]
- (b) What type of computer network topology connects the computers in the Science laboratory?
 [1]
- (c) Give **two** reasons for having a computer network in a school.
 Reason 1

 Reason 2
 [2]
- (d) Complete the following sentence.
 A network of computers on one small site is called a [1]
- (e) Other than cables, state **one** item of hardware that is needed to connect a network to the Internet.
 [1]

(f) Give **two** problems that might occur when the school's network is connected to the Internet.

Problem 1

.....

Problem 2

..... [2]

(g) The laptop computers are using a wireless connection to the network.

Give **one** advantage and **one** disadvantage of using a wireless connection for the laptops.

Advantage

.....

Disadvantage

..... [2]

7 Explain why an electricity supply company uses batch processing to prepare its bills.

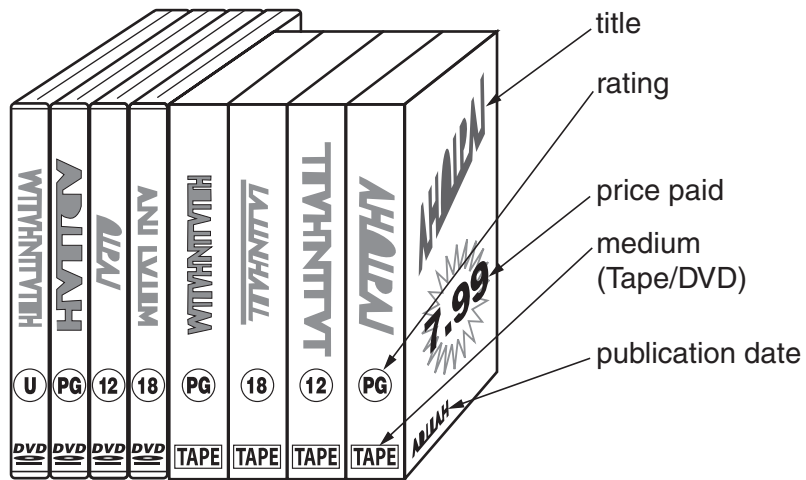
.....

.....

.....

..... [2]

8 Eve is creating a database of her collection of videos and DVDs.



(a) She creates five fields for her database.

Complete the table to show the most suitable data type for each of the fields.

Field	Data type
Title	
Rating	
Price paid	
Medium (Tape/DVD)	
Publication date	

[5]

(b) Eve sets up some validation rules.

Why does she do this?

.....
 [1]

(c) State **one** validation method that could be used for the 'Medium (Tape/DVD)' field.

.....
 [1]

(d) Describe how Eve would verify the entries.

.....
.....
.....
..... [2]

9 An expert system can be used to play chess.

(a) Give **one** other example of an expert system.

..... [1]

(b) Give **two** benefits of using an expert system.

Benefit 1
.....
Benefit 2
..... [2]

10 Describe **three** changes to the way businesses and industry operate caused by the introduction of ICT.

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..... [6]

11 Explain how files stored on a computer network may be protected from unauthorised users.

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.....
..... [3]

12 (a) What is meant by 'electronic fraud'?

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..... [2]

(b) Explain how a person can avoid being the victim of electronic fraud.

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..... [4]

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