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Tuesday 17 January 2012 – Morning

GCSE INFORMATION AND COMMUNICATION TECHNOLOGY

2359/01 Paper 3 (Foundation Tier)

Candidates answer on the Question Paper.

OCR supplied materials:
None

Other materials required:
None

Duration: 1 hour



Candidate forename		Candidate surname	
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Centre number							Candidate number				
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INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Do **not** write in the bar codes.

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this paper is **60**.
- This document consists of **8** pages. Any blank pages are indicated.

1 Circle **two** storage media.

bar code reader

CD-R

graphics tablet

hard disk

OMR

touch screen

[2]

2 Tick **one** box in each row to show whether the statement is true or false.

Statement	True (✓)	False (✓)
A desk top publishing package is used to produce a newspaper		
A graphics tablet is used to input a bar code		
An operating system is a type of hardware		
A spreadsheet is used to create financial models		
A word processor is used to control a patient's temperature in hospital		

[5]

3 Tick **one** box in each row to show whether the task is part of the Analysis phase or the Design phase of the systems life cycle.

Task	Analysis (✓)	Design (✓)
Choosing any validation or verification required		
Establishing the input, output and processing required		
Researching the existing system		
Specifying the file structure		

[4]

- 4 A system to record examination marks out of 100 is to be tested.
Use a word from the following list to complete each of the statements below:

normal

abnormal

extreme

0 is an example of data

65 is an example of data

125 is an example of data

100 is an example of data

[4]

- 5 Tick **three** applications which use batch processing.

Application	<input checked="" type="checkbox"/>
A computerised theatre booking system	<input type="checkbox"/>
Printing payslips	<input type="checkbox"/>
Processing cheques by a bank	<input type="checkbox"/>
Processing electricity bills	<input type="checkbox"/>
Purchasing an item at a POS terminal	<input type="checkbox"/>
Withdrawing money from an ATM	<input type="checkbox"/>

[3]

6 Complete each sentence below using **one** item from the list.

A memory stick

MICR

OMR

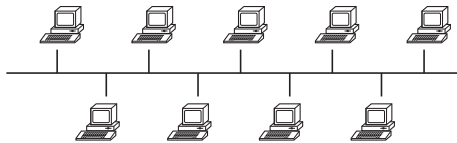
RAM

A scanner

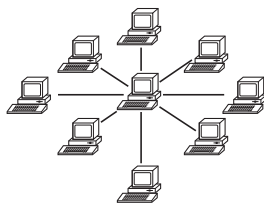
- is used to store, temporarily, documents that computer users are currently working on.
- is used to input data from a bank cheque to a computer.
- is used to input data from hard copy to a computer.
- is used to read pencil marks from multiple choice exam answer sheets.
- is used to store files so that they can be moved from one computer to another.

[5]

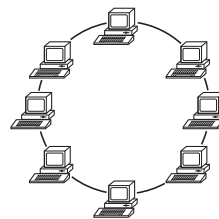
7 Name the following network topologies:



Name



Name



Name

[3]

8 When an item is purchased from a supermarket the checkout operator needs to input the details of the pre-packed goods.

(a) Identify an input device, other than a keyboard, which would be suitable for entering the details of the goods.

..... [1]

The checkout operator also needs to input details from the customer's bank card.

(b) Identify an input device, other than a keyboard, that would be used to enter these details.

..... [1]

(c) Give **two** items of data that would be read from the customer's bank card.

Item 1

Item 2 [2]

9 Tick **one** box in each row to show whether the statement is true or false.

Statement	True (✓)	False (✓)
A length check could be used with 10 character identity codes		
A range check could be used with students' names in a database		
An invalid character check could be used with 6 digit dates of birth		
Check digits are used with the entry of examination marks		

[4]

10 A system is about to be computerised. Using questionnaires is one method of collecting information about the existing system.

(a) Explain why using questionnaires is **not** always the best method of collecting information.

.....

 [2]

(b) Identify **two** other methods of collecting information about an existing system.

Method 1

 Method 2
 [2]

11 A small business wants to convert its manual payroll system to a computerised one.

Tick **three** reasons why they would implement this using parallel running rather than direct changeover.

Reason	✓
Documentation of the system is not required	
It is easier to check that the new system is working correctly	
It is easier to modify the system and still produce the payroll	
Their total wage bill will be lower	
There is no delay before the new system is fully operative	
They still have the manual system to use if the new system fails	

[3]

- 12 A doctor's surgery uses an expert system. Tick **four** items which must be part of an expert system.

Item	✓
Bar code reader	
Dot matrix printer	
Graphics package	
Inference engine	
Interactive input screen	
Knowledge base	
Rules base	
Search engine	

[4]

- 13 A company allows some employees to work from home.

Describe **two** advantages to the worker of working from home when compared with working in an office.

Advantage 1

.....

Advantage 2

..... [2]

- 14 Tick **four** requirements of the Data Protection Act.

Requirement	✓
Individuals have a right to view the information held about them.	
Personal data shall be accurate and, where necessary, kept up to date.	
Personal data shall be adequate, relevant and not excessive in relation to the purpose or purposes for which they are processed.	
Personal data shall be kept for 100 years.	
Personal data shall be obtained for any purpose the data holder feels is necessary.	
Personal data shall be processed fairly and lawfully.	
Personal data shall be processed without considering the rights of data subjects.	

[4]

15 Describe the differences between a WAN and a LAN.

.....

.....

.....

.....

.....

..... [3]

16 A head teacher has decided to stop producing the school newsletter in printed form. She will put the information on the school’s website instead.

Describe, giving examples, **three** different features that could be used when presenting information on a website that would **not** be available in a printed newsletter.

Feature 1.....

.....

.....

.....

Feature 2.....

.....

.....

.....

Feature 3.....

.....

.....

..... [6]



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