

SECTION A

Answer ALL questions.
For each question, choose an answer, A, B, C or D and put a cross in the box.
Mark only one answer for each question. If you change your mind, put a line through the box and then mark your new answer with a cross.

eg: Mark the box like this:

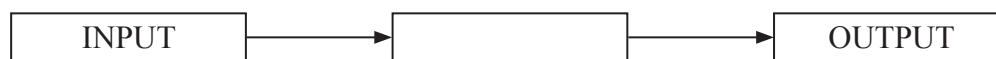
<input type="checkbox"/> A
<input type="checkbox"/> B
<input checked="" type="checkbox"/> C <i>This shows your answer</i>
<input type="checkbox"/> D

If you change your mind, mark the boxes like this:

<input checked="" type="checkbox"/> A <i>This shows your final answer</i>
<input type="checkbox"/> B
<input checked="" type="checkbox"/> C <i>First answer</i>
<input type="checkbox"/> D

1. This diagram shows how a computer system works.

Which word is missing from the diagram?



- A program
- B process
- C feedback
- D record

(Total 1 mark)

Q1

2. Which **one** of these is an input device?

- A scanner
- B speakers
- C monitor
- D printer

(Total 1 mark)

Q2

3. A set of data stored on a disk is called a:

- A report
- B record
- C file
- D field

(Total 1 mark)

Q3



<p>4. The most appropriate storage device for a feature film is a:</p> <p><input type="checkbox"/> A floppy disk</p> <p><input type="checkbox"/> B drawing package</p> <p><input type="checkbox"/> C DVD</p> <p><input type="checkbox"/> D presentation package</p> <p style="text-align: right;">(Total 1 mark)</p>	<p>Leave blank</p> <p>Q4</p> <input type="text"/>
<p>5. CDs are:</p> <p><input type="checkbox"/> A hardware</p> <p><input type="checkbox"/> B software</p> <p><input type="checkbox"/> C internal memory</p> <p><input type="checkbox"/> D backup storage</p> <p style="text-align: right;">(Total 1 mark)</p>	<p>Q5</p> <input type="text"/>
<p>6. CPU stands for:</p> <p><input type="checkbox"/> A Central Processing Unit</p> <p><input type="checkbox"/> B Central Programming Unit</p> <p><input type="checkbox"/> C Computer Processing Unit</p> <p><input type="checkbox"/> D Computer Programming Unit</p> <p style="text-align: right;">(Total 1 mark)</p>	<p>Q6</p> <input type="text"/>
<p>7. A motor is:</p> <p><input type="checkbox"/> A an input device</p> <p><input type="checkbox"/> B a storage device</p> <p><input type="checkbox"/> C an output device</p> <p><input type="checkbox"/> D a processing device</p> <p style="text-align: right;">(Total 1 mark)</p>	<p>Q7</p> <input type="text"/>
<p>8. A saved document cannot be changed if it is:</p> <p><input type="checkbox"/> A compressed</p> <p><input type="checkbox"/> B write only</p> <p><input type="checkbox"/> C read only</p> <p><input type="checkbox"/> D archived</p> <p style="text-align: right;">(Total 1 mark)</p>	<p>Q8</p> <input type="text"/>





<p>9. Drawing packages allow images to be cropped. Cropping will always:</p> <ul style="list-style-type: none"><input type="checkbox"/> A increase the size of the whole image<input type="checkbox"/> B remove part of the image<input type="checkbox"/> C change the colour of the image<input type="checkbox"/> D reduce the height of the whole image <p style="text-align: right;">(Total 1 mark)</p>	Leave blank Q9 <input type="text"/>
<p>10. Which data type is used for data which is either true or false?</p> <ul style="list-style-type: none"><input type="checkbox"/> A logical<input type="checkbox"/> B alphanumeric<input type="checkbox"/> C date<input type="checkbox"/> D text <p style="text-align: right;">(Total 1 mark)</p>	Q10 <input type="text"/>
<p>11. A CAD package could be used to:</p> <ul style="list-style-type: none"><input type="checkbox"/> A scan a photograph<input type="checkbox"/> B measure rainfall<input type="checkbox"/> C create a scaled drawing<input type="checkbox"/> D simulate an experiment <p style="text-align: right;">(Total 1 mark)</p>	Q11 <input type="text"/>
<p>12. A keyboard that is designed to be comfortable to use is:</p> <ul style="list-style-type: none"><input type="checkbox"/> A a concept keyboard<input type="checkbox"/> B a QWERTY keyboard<input type="checkbox"/> C an alphanumeric keyboard<input type="checkbox"/> D an ergonomic keyboard <p style="text-align: right;">(Total 1 mark)</p>	Q12 <input type="text"/>



<p>13. Which one of these uses magnetic storage?</p> <p><input type="checkbox"/> A CD ROM</p> <p><input type="checkbox"/> B DVD</p> <p><input type="checkbox"/> C Hard disk</p> <p><input type="checkbox"/> D CD RW</p> <p style="text-align: right;">(Total 1 mark)</p>	<p>Leave blank</p> <p>Q13</p> <input type="text"/>
<p>14. RAM memory is volatile.</p> <p>Data in RAM is:</p> <p><input type="checkbox"/> A stored permanently</p> <p><input type="checkbox"/> B saved when the computer is switched off</p> <p><input type="checkbox"/> C stored externally</p> <p><input type="checkbox"/> D lost when the computer is switched off</p> <p style="text-align: right;">(Total 1 mark)</p>	<p>Q14</p> <input type="text"/>
<p>15. Which one of these is a principle of the Data Protection Act?</p> <p><input type="checkbox"/> A data cannot be kept for more than one year</p> <p><input type="checkbox"/> B data should be kept secure</p> <p><input type="checkbox"/> C data should not be shown to anyone</p> <p><input type="checkbox"/> D data may be given out for marketing purposes</p> <p style="text-align: right;">(Total 1 mark)</p>	<p>Q15</p> <input type="text"/>
<p>16. A series of commands developed to solve a problem is:</p> <p><input type="checkbox"/> A an algorithm</p> <p><input type="checkbox"/> B a decision</p> <p><input type="checkbox"/> C a process</p> <p><input type="checkbox"/> D a formula</p> <p style="text-align: right;">(Total 1 mark)</p>	<p>Q16</p> <input type="text"/>





<p>17. Automatic backup is a type of:</p> <ul style="list-style-type: none"><input type="checkbox"/> A security software<input type="checkbox"/> B application package<input type="checkbox"/> C communication software<input type="checkbox"/> D operating system utility <p style="text-align: right;">(Total 1 mark)</p>	Leave blank Q17 <input type="text"/>
<p>18. In a database 'Newcastle' is encoded as 'NCL'.</p> <p>One reason for encoding the data is that it:</p> <ul style="list-style-type: none"><input type="checkbox"/> A cannot be read by hackers<input type="checkbox"/> B will be more difficult to understand<input type="checkbox"/> C is impossible to verify<input type="checkbox"/> D is easier to validate <p style="text-align: right;">(Total 1 mark)</p>	Q18 <input type="text"/>
<p>19. Some Internet sites contain information unsuitable for children.</p> <p>Parents can restrict the sites that their children access by using a:</p> <ul style="list-style-type: none"><input type="checkbox"/> A filter<input type="checkbox"/> B firewall<input type="checkbox"/> C browser<input type="checkbox"/> D virus checker <p style="text-align: right;">(Total 1 mark)</p>	Q19 <input type="text"/>

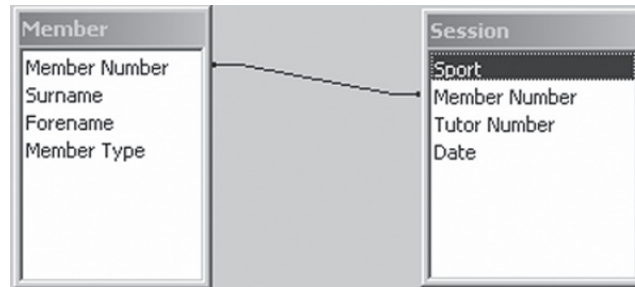


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20. The diagram shows two tables that have been linked in a relational database.

The Member Number is the primary key in the Member table.

What is the term used to describe Member Number in the Session table?



- A foreign key
- B secondary key
- C master key
- D subsidiary key

(Total 1 mark)

Q20

TOTAL FOR SECTION A: 20 MARKS



7

Turn over

Leave
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SECTION B

1. Information relating to sales and stocks of books is recorded in the **BOOK_SALES** spreadsheet.

Part of the **BOOK_SALES** file is shown.

	A	B	C	D	E
1	Ref. No.	Purchase Price	Selling Price	Opening Stock	Closing Stock
2	JTH7262	£6.00	£6.60	35	13
3	FAU1524	£8.00	£8.80	100	41
4	FCO1053	£12.50	£13.75	65	30
5	GCO3162	£6.00	£6.60	105	75
6	JSC0423	£12.00	£13.20	90	45
7	GAU0042	£15.50	£17.05	75	45
8	JTH1932	£8.50	£9.35	120	37
9	FSC0076	£20.00	£22.00	80	42
10	JTH1965	£6.00	£6.60	105	65

- (a) State the address of a cell that contains numeric data.

..... (1)



Leave
blank

(b) State the address of the cell which gives the **Opening Stock** for GC03162

.....
(1)

(c) State the address of the cell that shows the **Purchase Price** of the most expensive book.

.....
(1)

(d) The **Selling Price** is calculated by adding 10% to the **Purchase Price**.

(i) Write down the formula that has been entered in cell C2 to calculate the **Selling Price** for JTH7262.

.....
.....
(2)

(ii) Name the process that can be used to copy the formula in cell C2 for use in cells C3 to C10.

.....
(1)

(e) The **Purchase Price** values have been formatted as currency.

Write down how this was done.

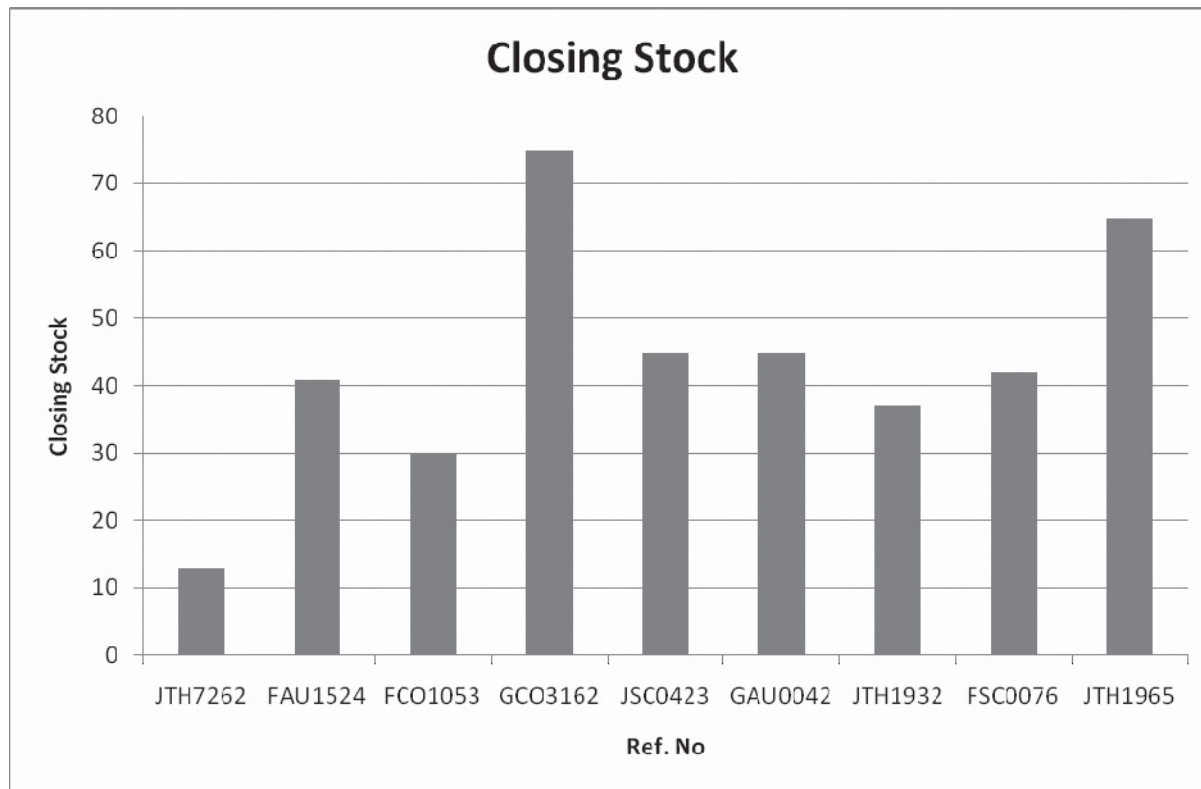
.....
.....
.....
.....
(2)



Leave blank

(f) A bar chart has been produced for 'Bobbies Bookstore' to show the **Closing Stock** for each book. The chart is saved as CS_CHART for later use.

Here is the chart.



The manager would like to insert the chart into a word processed sales report.

Explain how the manager would do this.

.....

.....

.....

.....

.....

.....

.....

(4)

(Quality of Written Communication: 3 marks)

(Total 15 marks)

QB1



Leave blank

2. Sales at 'Bobbies Bookstore' are processed through the EPOS system.

(a) The table shows the steps that are carried out by the EPOS system. They are not in the correct order.

Put them in the correct order by putting a number next to each step. The first one is done for you.

Steps in the EPOS process	Step No.
The price is sent to the till.	
The bar code is scanned.	1
An itemised receipt is printed.	
The item price is found.	
The information is sent to the computer database.	

(4)

(b) The EPOS system has advantages for both 'Bobbies Bookstore' and its customers.

(i) Identify **two** advantages for 'Bobbies Bookstore'.

Advantage 1

Advantage 2

(2)

(ii) Identify **two** advantages for customers.

Advantage 1

Advantage 2

(2)

QB2

(Total 8 marks)



3. Hugo Stanton, a well known author, is visiting 'Bobbies Bookstore' to sign his latest book for customers. One of the administration staff has produced a flyer to hand out to local people.

Here is the first draft of the flyer.

Bobbies Bookstore

May Book Signing

How to Pass Your Exams
Hugo Stanton
Published by Helinson
£6.95

The author for May's book signing will be Hugo Stanton. He will be in the store to sign his new book *How to Pass Your Exams*. As a retired headmaster, Hugo Stanton has a lot of experience in supporting students through their exams and is keen to pass this on to others.

The book signing will begin at 10am on Saturday, 26 June at our bookstore in Sunderland. It will finish at 12.30pm or before if we sell out of his books!

Future book signing authors will include Harriet Hartwell, James Greenwood and Cheryl Lampeter.

For more details please telephone 0191 1267896 or email signings@bbookstore.co.uk

- (a) Identify the type of software that has been used to produce the flyer.

..... (1)



Leave blank

(b) Two features of the software that could be used to improve the flyer are changing the font style and font size of the title.

Identify **three** other features of the software that can be used to improve the flyer. For each feature give an example of how it can be used in the flyer.

Feature 1

Use

.....

Feature 2

Use

.....

Feature 3

Use

.....

(6)

(c) A keyboard and a mouse are input devices used in producing the flyer.

Give **one** other input device and an example of how it could be used in the flyer.

Device

Use

.....

(2)

(d) The information in the flyer should be accurate.

Give **two** methods that can be used to check that the information is accurate.

Method 1

.....

Method 2

.....

(2)

(Total 11 marks)

QB3

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4. 'Bobbies Bookstore' has decided to introduce an on-line ordering facility on its website.

(a) Give **two** advantages for customers of using an on-line ordering facility.

Advantage 1

.....

Advantage 2

.....

(2)

(b) Give **three** advantages for 'Bobbies Bookstore' of customers ordering on-line.

Advantage 1

.....

Advantage 2

.....

Advantage 3

.....

(3)

(c) 'Bobbies Bookstore' sends an automatic confirmation e-mail to a customer when an order is received.

(i) Describe the process of sending an automatic e-mail to a customer.

.....

.....

.....

.....

(3)

(ii) Identify the device the customer would use to produce a hard copy of the email.

.....

(1)

QB4

(Total 9 marks)

TOTAL FOR SECTION B: 43 MARKS



SECTION C

1. A computer system is made up of hardware and software.

(a) The table shows four hardware devices which are used for input, output or storage.

Put a cross in **one** box in each row to show what each device is used for.

Device	Input	Output	Storage
Printer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Graphics tablet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tracker ball	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hard disk drive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(4)

(b) Name a device that is both an input and an output device.

..... (1)

(c) A CD ROM can store approximately 700 Mb of data.

(i) State what Mb stands for.

..... (1)

(ii) State what ROM stands for.

..... (1)

(d) CD ROMs are used to store sound files.

(i) Name a device that can be used to input sound.

..... (1)

(ii) Name a device that can be used to output sound.

..... (1)



Leave blank

(e) The boxes on the left show software that can be found on most computer systems.

The boxes on the right show different types of software.

Draw a line to link each piece of software to its type of software.

Software

Word processor

E-mail

Firewall

Type of software

Security

Application

Communication

(3)

(f) Give another name for software.

.....

(1)

(g) User interfaces allow computer systems to communicate with humans.

One type of user interface is menu driven, name **two** other types.

1

2

(2)

QC1

(Total 15 marks)



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2. *'FasterFlights'* is an airline company. Its website allows customers to book flights on-line.

(a) Customers complete a screen form when making their booking.

The screen form on the opposite page has been partly designed.

Finish the design of the screen form.

Make sure your screen form is easy for customers to complete and includes all important information.



Leave
blank

FasterFlights

Surname																				
Forename																				

House Number																				
Street																				
Town																				

(8)



Leave blank

(b) The information collected from the flight bookings is stored on a computer database.

Part of the CUSTOMER_FILE is shown.

Forename	Surname	Date Booked	New Customer	Customer ID
Amien	Nannar	07/03/10	Y	F1010
Fred	Armstrong	17/05/10	N	M1031
Kulbir	Sangha	18/12/09	Y	M0098
Jack	Channell	02/05/10	Y	M0132
Miranda	Skimpton	19/03/10	N	F0305
Francis	Gardener	29/11/09	Y	M0941
James	O'Brien	16/04/10	Y	M0987

State how many records are shown.

.....
(1)

(c) The CUSTOMER_FILE has a key field.

(i) Name the key field.

.....
(1)

(ii) Explain why this field **must** be the key field.

.....
.....
(2)



Leave blank

(d) Complete this table to give an appropriate data type and field length for each field.

Field Name	Data Type	Field Length
Surname		15
Date Booked		
New Customer	Logical	
Customer ID		

(6)

(e) One function of database software is the ability to edit data. This makes it suitable for storing customer information.

Give **two** other functions of database software that make it suitable for this purpose.

Function 1

Function 2

(2)

QC2

(Total 20 marks)



3. A network can be either a Wide Area Network (WAN) or a Local Area Network (LAN).

(a) For each situation put a cross in the correct column to show whether a WAN or a LAN would be appropriate.

Situation	WAN	LAN
Primary School	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Internet	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Small Business	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Cash Machines (ATMs)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

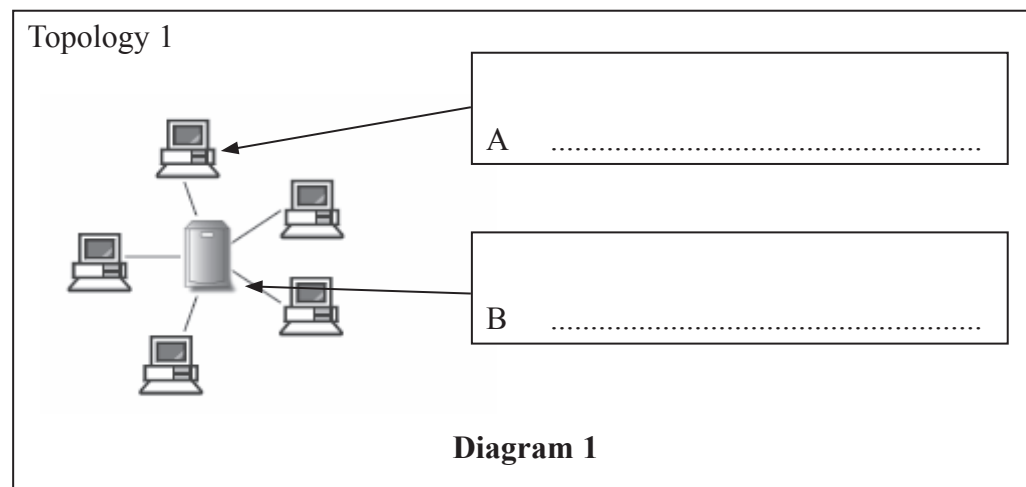
(4)

(b) A LAN can be connected by cables and can have different topologies.

Diagram 1 shows one type of topology.

(i) Name this type of topology.

..... (1)



(ii) Complete the boxes in Diagram 1 to identify components A and B.

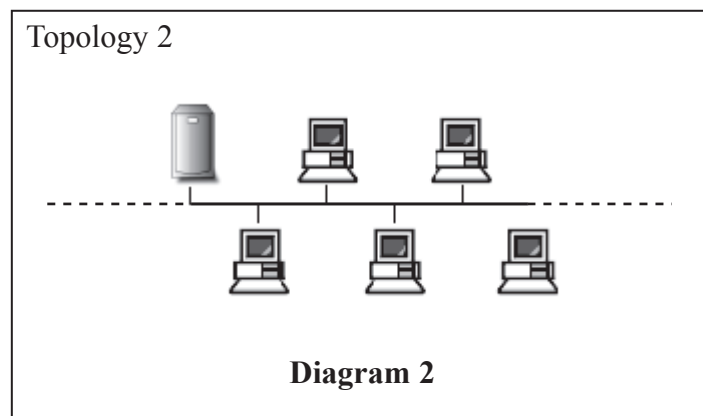
(2)



(c) Diagram 2 shows another type of topology.

Name this type of topology.

..... (1)



(d) Complete this table by identifying **one** advantage and **one** disadvantage of each type of topology.

	Advantage	Disadvantage
Topology 1		
Topology 2		

(4)



(e) Give **two** advantages of using a LAN rather than stand-alone computers.

Advantage 1

.....

Advantage 2

.....

(2)

(f) Give **one** disadvantage of using a LAN rather than stand-alone computers.

.....

.....

(1)

Leave
blank

QC3

(Total 15 marks)



4. Flight simulators are used to train pilots.

(a) Give **four** benefits of using flight simulators to train pilots.

Benefit 1

.....

Benefit 2

.....

Benefit 3

.....

Benefit 4

.....

(4)

(Quality of Written Communication: 3 marks)

(b) Give **two** limitations of using flight simulators to train pilots.

Limitation 1

.....

Limitation 2

.....

(2)

(c) Name **one** input device that would be used as part of a flight simulator.

.....

(1)

(d) Name **one** output device that would be used as part of a flight simulator.

.....

(1)



(e) A flight simulator is one example of computer modelling.

Give **two** other examples of computer modelling.

Example 1

.....

Example 2

.....

(2)

QC4

(Total 13 marks)

TOTAL FOR SECTION C: 63 MARKS

TOTAL FOR PAPER: 126 MARKS

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