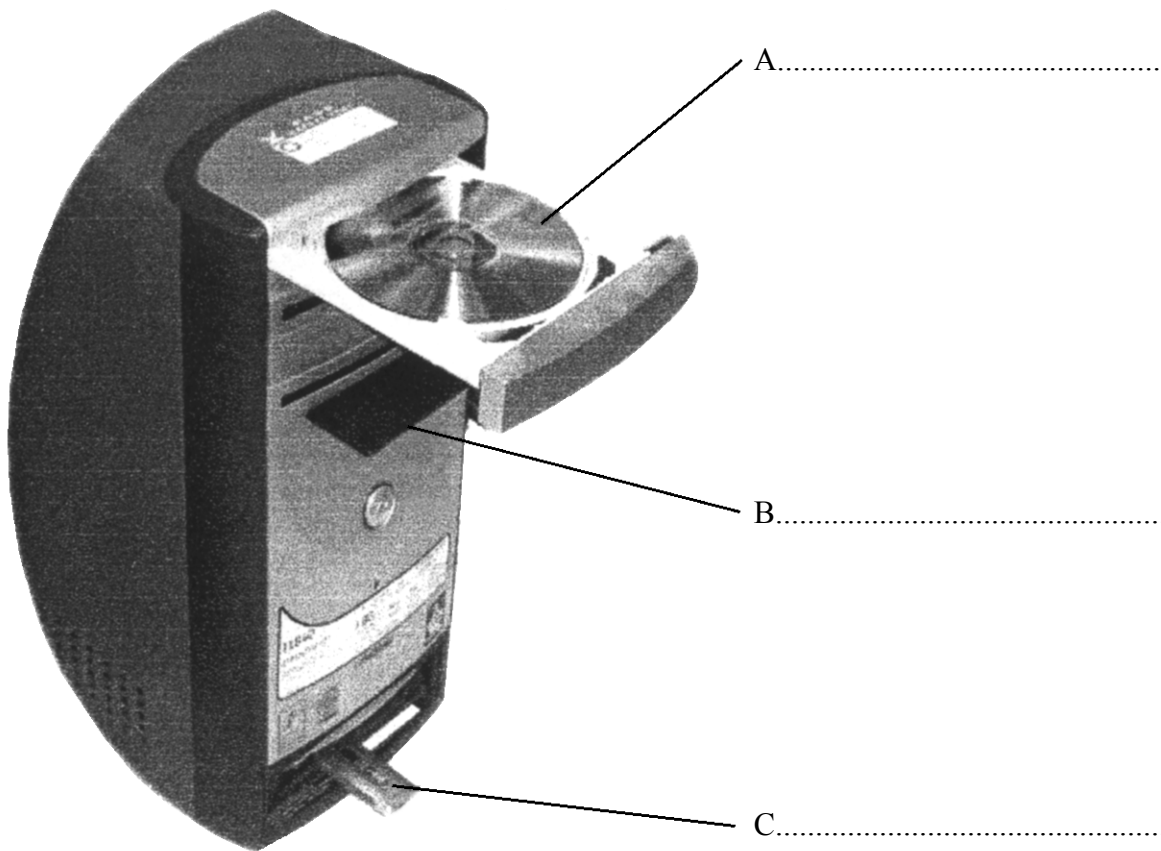


Answer ALL questions

1. The photograph shows three data storage devices.

(a) Name devices A, B and C.

(3)



(b) Name **one** other data storage device.

.....

(1)

(Total 4 marks)

Q1



Leave blank

2. Spam, hacking attempts, viruses and anti-social material are common Internet problems.

(a) Draw a line from each problem to its solution.
Each solution should be used **once**. The first one has been done for you.

Problem	Solution
Spam	Firewall
Viruses	Filter software
Hacking attempts	e-mail filter
Anti-social material	Anti-virus software

(3)

(b) Computer viruses are often downloaded from the Internet. For example, they might be downloaded in a screen saver.

State **three** other ways in which computer viruses might be accidentally downloaded from the Internet.

- 1
- 2
- 3

(3)

(Total 6 marks)

Q2



Leave
blank

3. (a) State **two** items of hardware that must be added to a PC to enable it to be used for video conferencing. Explain the purpose of each item.

Hardware item 1

Purpose

Hardware item 2

Purpose

(4)

- (b) Identify **one** advantage and **one** disadvantage of using video conferencing, rather than the telephone, for a conversation.

Advantage

Disadvantage

(2)

Q3

(Total 6 marks)



Leave
blank

4. A science teacher puts the results of an experiment into a spreadsheet. The results of the experiment are to be displayed as a graph on a poster.

(a) Describe how the teacher could produce a graph from the spreadsheet.

.....
.....

(2)

(b) Describe how the teacher could move the graph from the spreadsheet to the poster in the desktop publisher.

.....
.....

(2)

(c) One of the pupils takes a photograph of the experiment. The photograph is stored on the computer and is to be put on the poster as a background to the graph. Describe how this could be done.

.....
.....
.....
.....

(4)

Q4

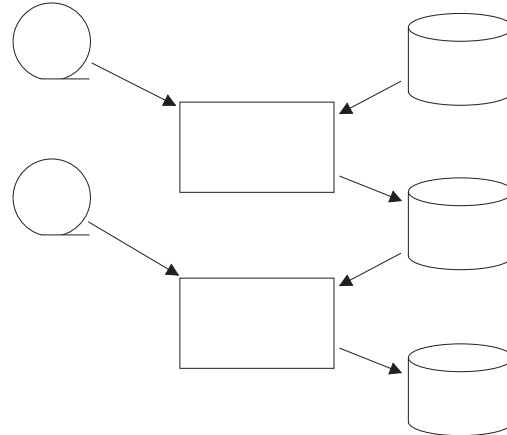
(Total 8 marks)



Leave blank

5. The flowchart is intended to show how file generations can be used for backing up a file. Some of the terms listed can be used to complete the flowchart. Choose from the letters A to G to label the flowchart boxes. Each letter may be used once, more than once or not at all.

- A Father file.
- B Grandfather file.
- C Printout.
- D Recovery file.
- E Son file.
- F Transaction file.
- G Update.



(Total 7 marks)

Q5

6. A school provides a laptop computer for each teacher. The laptops connect to the school's local area network (LAN). Teachers can use their laptops in several locations, including the school playground. The LAN uses radio network connections rather than cables.

- (a) Give **three** advantages of using radio rather than cables for this purpose.

Advantage 1

Advantage 2

Advantage 3

(3)

- (b) The LAN is connected to the Internet through a network hub and a telephone line. State **one** other piece of hardware that is needed. Describe the function of the hardware.

Hardware

Function

(2)

- (c) State **one** piece of software that each teacher will need to access the Internet. Describe the function of the software.

Software

Function

(2)

(Total 7 marks)

Q6



7. This spreadsheet is used to work out the pay for employees of a small company. Each employee is paid an hourly rate for working up to 40 hours a week. Extra hours are called overtime and earn a higher rate of pay called overtime rate.

	A	B	C	D	E	F	G
1	Name	Hourly rate	Overtime rate	Hours worked	Overtime	Total pay	
2	Jones	£5.50	£8.25	43	3	£244.75	
3	Singh	£5.50	£8.25	38		£209.00	
4	Cohen	£6.00	£9.00	46	6	£294.00	
5	Kumar	£5.00	£7.50	40		£200.00	
6	Stone	£6.50	£9.75	36		£234.00	
7							
8						£1,181.75	Total payroll

Each cell is named by a column letter and a row number. For example the word Jones is in the cell named A2.

Each cell may also contain a function or a formula.

- (a) Name a cell which contains a SUM function.....
(1)

- (b) Name a cell which contains a formula.
(1)

Each cell in the spreadsheet is formatted as text, number or currency.

- (c) State the format for the following cells.
cell A4
cell C5
(2)

- (d) If Mr Singh had worked for 42 hours, the contents of some cells would be changed. Name the cells which would be changed.
.....
(4)

- (e) The overtime rate is one and a half times the hourly rate. Give a formula which could be in cell C2 to calculate the overtime rate.
C2 =
(2)

- (f) Explain how the formula could be most easily put into cells C3 to C6.
.....
(2)

(Total 12 marks)

Q7



Leave blank

8. A student makes a website for a school chess club. The site has several pages of text and pictures, joined by hyperlinks. There are no interactive features such as forms or searches.

(a) The student wishes to test the site before it is published. State **three** tests for the site. Give a reason for each test.

Test 1

Reason

Test 2

Reason

Test 3

Reason

(6)

(b) After the site has been published, the student wishes to monitor and evaluate its performance. Briefly describe **two** features which the student could add to the site that would help to monitor or evaluate it.

Feature 1

.....

Feature 2

.....

(4)

Q8

(Total 10 marks)



9. (a) A taxi company uses a database to hold details of its drivers and vehicles. Complete the following table about some of the fields within a driver's record. The first one has been done for you.

Field name	Example data	Type	Size	Reason
Driver I.D.	24	Numeric	2	Example data shows a number and there are unlikely to be more than 99 drivers.
Vehicle colour	BLK			
Next service date for the vehicle	241205			
Telephone number for the driver	0207 758 5656			

(9)

(b) When data is entered into the database, it is validated by software. Choose two fields from the table above. For each field, name a validation technique which would be suitable and describe how the named validation would work.

Choice 1

Field name

Validation technique

Description

Choice 2

Field name

Validation technique

Description

(4)

Q9

(Total 13 marks)

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Leave blank

10. A mail order company receives customers' orders written on printed slips. An example is shown in the diagram.

Customer name Mr. J. Smith		Customer reference number JS3216			
Item description	Item code	Quantity	Office use only		
			Date in	In stock	Checked
C D Storage Rack	TF6651	1			
Shelf unit	HU7217	2			
Keyboard cover	TK5350	1			

(a) The slips are batch processed daily. Explain the term **batch processing**.

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

(b) Instead of batch processing, transaction processing could be used. Give **one** advantage to the company of using transaction processing rather than batch processing.

.....
(1)

(c) The item code is used instead of the item description when processing the order. Give **three** reasons why this is beneficial to the company.

Reason 1

Reason 2

Reason 3

(3)

(d) The data on the slip is entered by a data entry clerk. A second clerk checks the entry and, if it is correct, signs the "Checked" column on the slip. State the name of this process and give the reason why the company requires it.

Name

Reason

(2)

(Total 8 marks)

Q10



Leave
blank

11. (a) A computer manufacturing company has a website which offers a wide range of services to its customers. Two of these services are

- the facility to obtain information about products
- the facility to purchase a product on-line.

State **two** other services which the company website could offer. For each service, state **one** advantage for the company and **one** advantage for its customers.

Service 1

Advantage to company

Advantage to customers

Service 2

Advantage to company

Advantage to customers

(6)

(b) The company joins a web ring. State the function of a web ring and give **one** advantage of it for the company and **one** advantage for the customers.

Function

Advantage to company

Advantage to customers

(3)

Q11

(Total 9 marks)



Leave blank

12. A town council wishes to improve traffic flow through a town. The planners run computer simulations of the proposed improvements and report the results to the council.

(a) Explain what is meant by a computer simulation.

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

(b) State **three** benefits to the town of running the simulations.

Benefit 1
Benefit 2
Benefit 3
(3)

(c) State **one** limitation of the simulations.

.....
(1)

(d) The results of the simulations must be presented to the town council before further development takes place. The report must present cost and traffic flow predictions. Describe a suitable method of presenting this type of information. Justify your answer.

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

(e) The council wishes to present the final plan to the residents for their approval. Describe a suitable method of presenting this information. Justify your answer.

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

Q12

(Total 10 marks)

TOTAL FOR PAPER: 100 MARKS

END

