
Answer **all** questions in the spaces provided.

For **Questions 1 to 6**, write the letter or letters for the answers in the spaces given.

1 What does **RAM** stand for?

- A Remote Access Memory
- B Reliable Access Memory
- C Random Access Memory
- D Replaceable Access Memory

Answer

(1 mark)

2 What does **ROM** stand for?

- A Read Only Memory
- B Remote Only Memory
- C Random Only Memory
- D Reply Only Memory

Answer

(1 mark)

3 Which **one** of the following best describes the process of data validation?

- A Checking of data after processing to make sure it is correct
- B Checking of data after processing to make sure it is sensible
- C Checking of data before processing to make sure it is correct
- D Checking of data before processing to make sure it is sensible

Answer

(1 mark)

4 Which **two** of the following are methods of data validation?

- A Data logging
- B Linked tables
- C Police check
- D Presence check
- E Range check
- F Truancy check

Answer

(2 marks)

5 Which **three** of the following are features you would expect to find in graphics software?

- A Resizing of objects
- B Importing images
- C Data validation
- D Mailmerging
- E Insertion and deletion of fields
- F Use of brushes

Answers (3 marks)

6 Which **one** of the following is **not** a common feature of Web design software?

- A Financial modelling
- B Hotspots to be placed over parts of pictures
- C Hyperlinks to be created from text and graphics
- D Text and pictures to be imported

Answer (1 mark)

7 Each piece of hardware in the table below is either an input, output or storage device. For **each** put a tick in the correct box. As an example, an inkjet printer is an output device and so a tick is placed in the Output column.

| Device | Input | Output | Storage |
|--------------------|-------|--------|---------|
| Inkjet printer | | ✓ | |
| CD-R drive | | | |
| Digital camera | | | |
| Floppy disk drive | | | |
| Graphics digitiser | | | |
| Laser printer | | | |
| Plotter | | | |
| Scanner | | | |
| Speakers | | | |

(8 marks)

9

8

Turn over ►

- 8 A poster is needed to advertise Lancre Playgroup's summer fair. The poster has to contain the following information, which should be grouped as shown below.

General details

Lancre Playgroup Summer Fair

Date - 19th July 2005

Where - Rugby Stadium

Time - 1pm to 3pm

Ring Lancre 767676 for more details

Admission

Adults 50p

Children 25p

Children under 3 free

Stalls

Books and Comics

Cakes

Face Painting

Ice Cream

Plants

Tins and Packets

Toys

Other attractions

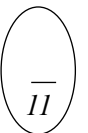
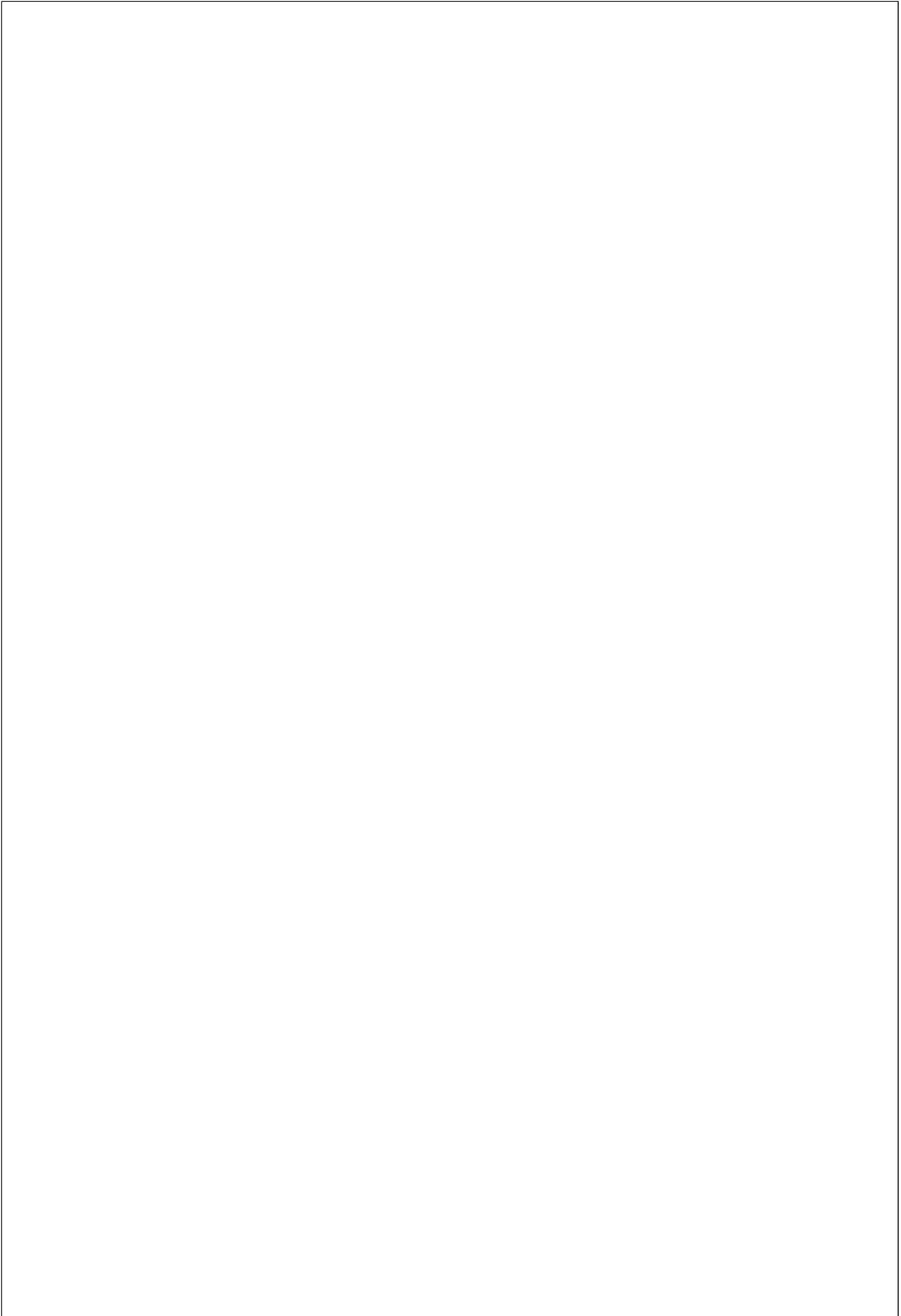
Fun Fair

Refreshments

Motorbike Display

- (a) Use the space on the page opposite to design a layout for the poster. You do not need to colour in your design. *(5 marks)*
- (b) Label your design to show where you would use each one of the following features:
- Large, bold font;
Coloured text;
Importing clip art. *(3 marks)*
- (c) Annotate your design to say why you would use each feature in the way you have shown. *(3 marks)*

Design your poster in the box below.



Turn over ►

9 An estate agency wants to computerise its existing filing system. Analysis, Design, Implementation, Testing and Evaluation will all be stages in the production of their information system.

(a) At which of these stages does each of the following take place? Some answers may be used more than once.

- (i) Setting up a database of the houses for sale
- (ii) Collecting information about how the existing system works.....
- (iii) Entering test data for the houses database
- (iv) Producing a test plan for the new system
- (v) Planning the layout of the database reports
- (vi) Reviewing the effectiveness of the system
- (vii) Planning how tables in the database will be linked together.....

(7 marks)

(b) Outline **two** ways in which the information could be collected about how the existing system works.

Way 1

.....

Way 2

.....

(2 marks)

9

TURN OVER FOR THE NEXT QUESTION

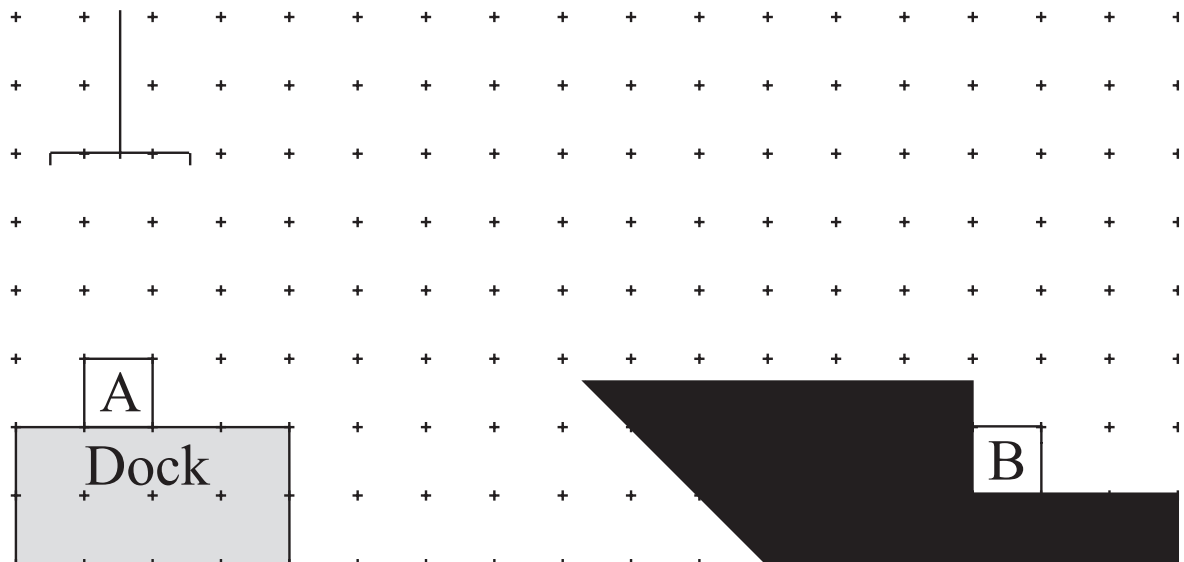
Turn over ▶

- 10** A computer system is used to control a crane that puts boxes on to ships. A grip at the end of the crane is used to pick up and put down the boxes.
The grip is moved by typing commands into the computer system.
The commands which are used to move the grip are as follows:

| | |
|---------|-----------------------------------|
| RIGHT 2 | Move the grip right 2 units |
| LEFT 3 | Move the grip left 3 units |
| UP 4 | Move the grip up 4 units |
| DOWN 5 | Move the grip down 5 units |
| CLOSE | Close the grip to pick up the box |
| OPEN | Open the grip to release the box. |

Using only commands from the list below, write down the instructions needed for the grip to pick up box A and place it on the ship's deck next to box B. The grip must then return to its original starting position.

Command List
RIGHT 14
LEFT 14
UP 4
UP 3
DOWN 3
DOWN 4
CLOSE
OPEN



- 11** The definitions given below are all related to data logging and control systems. From the list given, choose the term which best matches the definition in the left-hand column of the table below. Write your answers in the spaces provided.

| | | |
|--------------|------------------|-------------------|
| actuator | feedback | modem |
| calibrate | graphing | period of logging |
| data logging | logging interval | sensor |
| encryption | multiplexer | web browser |

| Definition | Term which best matches the definition |
|---|--|
| An input device used to measure environmental conditions | |
| Collecting and storing of data at regular, fixed intervals over a period of time | |
| The time taken between the first reading being taken and the last reading being taken | |
| The time between one reading being taken and the next reading being taken | |
| To correlate the readings of a sensor against those of a known standard | |
| The modification or control of a process or system by its results or effects | |

(6 marks)

12 A college connects its computers together to form a local area network (LAN).

- (a) Choose **three** advantages from the list below of connecting computers together in a LAN rather than using standalone machines.

| | Tick three boxes only |
|--|------------------------------|
| It is cheaper as printers can be shared | |
| Network computers use cheaper monitors | |
| Data can be quickly and easily transferred between computers | |
| Work cannot be lost or corrupted | |
| Users can access the Internet | |
| Users can communicate directly with each other | |

(3 marks)

- (b) Give **one** disadvantage of connecting computers together in a LAN rather than using standalone machines.

.....
.....

(1 mark)

- (c) What does the abbreviation WAN stand for?

.....

(1 mark)

- (d) Give **two** differences between a LAN and a WAN.

Difference 1

Difference 2

.....

(2 marks)

7

TURN OVER FOR THE NEXT QUESTION

Turn over ▶

- 13 (a) Which **three** of the following tasks are carried out by all operating systems?
- A transferring data to a printer
 - B replicating data in a spreadsheet
 - C changing the text size in a word processing document
 - D allocating CPU time
 - E accepting keyboard input
 - F copying a drawing on screen

Write the correct letters in the spaces below.

Answers (3 marks)

- (b) Outline an additional task which would have to be carried out by a multi-user operating system.

.....
.....

(1 mark)

- (c) Outline an additional task which would have to be carried out by a multi-tasking operating system.

.....
.....

(1 mark)

5

14 A library has been equipped with a new ICT resource centre. This has 12 multimedia PCs with fast access to the Internet.

(a) Give **two** possible advantages of using the Internet to find information rather than looking up the information in books.

Advantage 1

Advantage 2

(2 marks)

(b) Describe how to use a search engine to find information on the Internet.

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

(2 marks)

(c) Give **two** possible reasons why some library users will still look up information in books.

Reason 1

Reason 2

(2 marks)

(d) Give **one** resource, other than the Internet or books, that library users could use to look up information.

.....

(1 mark)



15 Fill in the blanks in each of the sentences below. Choose the correct words from the following list.

| | |
|----------------------|--------------------|
| Analysis | A mouse |
| Compression | OMR |
| Encryption | A password |
| A field | A transaction file |
| A key field | Validation |
| A keyboard | Verification |
| A local area network | A virus |
| A megabyte | |

- (i) can be of fixed or variable length.
- (ii) is used to make a file fit in a smaller space in backing store.
- (iii) is used to prevent use of stolen data.
- (iv) is used to limit access to data.
- (v) infects computer systems and can damage data.

(5 marks)

5

16 A new Animal Care Centre is going to collect and store data on its clients. They have decided to store the data in three linked tables. The three tables they will use are:

- Owner Details
- Animal Details
- Billing Details.

(a) Explain why these tables should be linked together.

.....

.....

(2 marks)

(b) Which **three** of the following fields would you expect to find in the Animal Details table?

| Fields | Tick three boxes only |
|-----------------------------|------------------------------|
| Owner's name | |
| Animal's name | |
| Cost of treatment | |
| Telephone number of owner | |
| Date of last treatment | |
| Date of birth of the owner | |
| Date of birth of the animal | |

(3 marks)

(c) Explain what is meant by the term "key field".

.....

.....

(1 mark)

(d) Suggest the name of a sensible key field for the Animal Details table.

.....

(1 mark)

END OF QUESTIONS

THERE ARE NO QUESTIONS PRINTED ON THIS PAGE