1 Name the methods used to represent information on A, B, C and D using the words from the list.

A

B

C

D

Bar code
Chip
DVD ROM
Flash memory
Graphics tablet
Light pen
Magnetic stripe
Optical marks

A
B
C
D

2 Ring two items which are output devices.

Buzzer
Graphics tablet
Joystick
Monitor
Optical character reader
Web cam

3 Tick TRUE or FALSE next to each of these statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>TRUE</th>
<th>FALSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer programs are examples of hardware</td>
<td></td>
<td></td>
</tr>
<tr>
<td>An internet browser is an example of software</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A pointer is used to select items in a command line interface</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A PDA is larger than a desktop computer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4 Complete the following sentences using the most appropriate device from this list.

<table>
<thead>
<tr>
<th>A remote control</th>
<th>A joystick</th>
<th>A keyboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>A chip reader</td>
<td>A graphics tablet</td>
<td>A microphone</td>
</tr>
</tbody>
</table>

(a) ........................................... is used in the recording of voices for presentation software.

(b) ........................................... is used to control a multimedia projector.

(c) ........................................... is used to write a letter.

(d) ........................................... is used to read information from a bank card.

(e) ........................................... is used in a flight simulator.

[5]

5 Describe the role of a proxy server when a LAN is connected to the internet.

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

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

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

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

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

6 Susan uses a memory stick to transfer her work from school to home. Give three reasons why memory sticks are often preferred to CDs for storing work.

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

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

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

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

............................................................................................................................................ [3]
A floor turtle can use the following instructions:

<table>
<thead>
<tr>
<th>INSTRUCTION</th>
<th>MEANING</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORWARD (n)</td>
<td>Move (n) mm forward</td>
</tr>
<tr>
<td>BACKWARD (n)</td>
<td>Move (n) mm backward</td>
</tr>
<tr>
<td>LEFT (t)</td>
<td>Turn left (t) degrees</td>
</tr>
<tr>
<td>RIGHT (t)</td>
<td>Turn right (t) degrees</td>
</tr>
<tr>
<td>PENUP</td>
<td>Lift the pen</td>
</tr>
<tr>
<td>PENDOWN</td>
<td>Lower the pen</td>
</tr>
</tbody>
</table>

Complete the set of instructions to draw this shape by filling in the blank lines.

PEN UP

FORWARD 50

RIGHT 90

---

---

---

---

---
8 Describe what is meant by a blog and a wiki.

(a) Blog

(b) Wiki

9 Tick TRUE or FALSE next to each statement to indicate if it is an example of online processing.

<table>
<thead>
<tr>
<th>Statement</th>
<th>TRUE</th>
<th>FALSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Withdrawing money from an ATM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Producing utility bills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Booking a plane ticket</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Producing payslips</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10 Describe the three types of test data:

Normal

Abnormal

Extreme


11 The head teacher of a school wants to build a weather station. She wants to use a computer to collect the results.

(a) Describe three reasons why she wants to use a computer rather than allow students to collect the results.

1 

2 

3 

(b) The results will be stored in a spreadsheet. The head teacher wants a word processed report. The report will contain a description of the weather and will use the spreadsheet results.

Describe how the report will be created.
(c) Spreadsheet data is often used for modelling purposes. Give three reasons other than reducing danger why computer models are sometimes used rather than the real thing.

1. .................................................................

2. .................................................................

3. .................................................................

[3]
12 A supermarket uses POS terminals. The stock levels in the supermarket are updated automatically. Describe the steps involved in updating the stock level of a product when the bar code is read.

[5]
A shop owner uses a spreadsheet to calculate his profits. This is part of the spreadsheet.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Producer</td>
<td>Food type</td>
<td>Number in stock</td>
<td>Cost Price</td>
<td>Selling Price</td>
<td>Profit</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Logeiks</td>
<td>Potato flakes</td>
<td>123</td>
<td>$2.30</td>
<td>$2.90</td>
<td>$0.60</td>
</tr>
<tr>
<td>3</td>
<td>Squarebranch</td>
<td>Chocolate bar</td>
<td>158</td>
<td>$0.75</td>
<td>$0.95</td>
<td>$0.20</td>
</tr>
<tr>
<td>4</td>
<td>Roofs</td>
<td>Beefburgers</td>
<td>135</td>
<td>$1.25</td>
<td>$1.55</td>
<td>$0.30</td>
</tr>
<tr>
<td>5</td>
<td>Kapats</td>
<td>Gravy</td>
<td>89</td>
<td>$3.20</td>
<td>$3.95</td>
<td>$0.75</td>
</tr>
<tr>
<td>6</td>
<td>Startle</td>
<td>Yoghurt cream</td>
<td>119</td>
<td>$1.50</td>
<td>$1.85</td>
<td>$0.35</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Total in stock</td>
<td>624</td>
<td></td>
<td></td>
<td></td>
<td>Overall profit</td>
</tr>
</tbody>
</table>

(a) Give the cell reference of the cell that contains 158.

(b) Give the cell reference of a cell that contains a label.

(c) Write down the formula in cell F5.

(d) Write down the formula in cell G2.

(e) Formulae similar to that used in cell G2 have been used in cells G3 to G6. These were not typed. Describe how these were entered.
14 John owns a small company. He wishes to replace the existing computerised system with a new one. He has employed a systems analyst, Iqbal, to plan this.

(a) Iqbal will need to collect information about the existing system. Describe three methods he could use to do this.

1  ........................................................................................................................................

2  ........................................................................................................................................

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

(b) Iqbal has completed the Analysis of the existing system. Describe three items of file structure which he would need to design for the new system.

1  ........................................................................................................................................

2  ........................................................................................................................................

3  ........................................................................................................................................ [3]
(c) After a system is designed it will be implemented. Describe each of the following methods of implementation.

(i) Direct changeover

(ii) Parallel running

(iii) Phased implementation

(iv) Pilot running

[4]
OMR, OCR and MICR are methods of direct data entry. Describe each method, giving an example of an application where each might be used.

(a) OMR

(b) OCR

(c) MICR

[3]
16 A company uses robots to manufacture cars.

(a) Give three advantages to the company of using robots rather than humans to manufacture cars.

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

(b) Give three disadvantages to the company of using robots rather than humans to manufacture cars.

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

17 Jasvir and her family have three computers in their home. She wants to connect the computers to create a network and access the internet. List four additional items she would need to set up this system. Your answers must include hardware and software.

1  ........................................................................................................................................ [4]
2  ........................................................................................................................................ [4]
3  ........................................................................................................................................ [4]
4  ........................................................................................................................................ [4]
18 An automatic washing machine is controlled by a microprocessor.

(a) Other than a temperature sensor, name two sensors used in the machine.

1 ........................................................................................................................................

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

(b) Explain why computers are unable to read the data directly from these sensors and name the device which would enable them to do so.

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

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

(c) Describe how the microprocessor uses data from the temperature sensor.

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........................................................................................................................................ [3]
Describe two methods of data verification.

1

2

[4]