1.  (a) Tick (√) the correct boxes to show if the following devices are used for Input or Output. [2]

<table>
<thead>
<tr>
<th>DEVICE</th>
<th>INPUT</th>
<th>OUTPUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scanner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Webcam</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(b) Other than a touch sensitive screen, scanner or webcam, name two other different devices and tick (√) to show if the devices are used for either Input or Output. [4]
(c) **Tick (✓) the correct boxes to show which of the following statements about music files are True or False.**

<table>
<thead>
<tr>
<th>STATEMENT</th>
<th>TRUE</th>
<th>FALSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A music clip stored in MP3 format would take up more memory than the same clip stored in WAV format.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Music files stored in MP3 format are better quality than files stored in WAV format.</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>MP3 files need to be decoded when used, which means they do not load as quickly as some other formats.</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

(d) **Give the name of the interface that allows a musical instrument and a computer to communicate with each other.**

(e) **Explain why sound signals need to be converted before they can be processed by a computer.**
2. (a) Use the correct term from the list below to match each of the descriptions about Presentation Software:

<table>
<thead>
<tr>
<th>Transition</th>
<th>Master page</th>
<th>Bullet</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTML</td>
<td>Animation</td>
<td>Hotspot</td>
</tr>
</tbody>
</table>

(i) Getting some of the content on a slide to move: .................................................... [1]
(ii) Movement from one slide to another: .................................................... [1]
(iii) An image containing a hyperlink: .................................................... [1]

(b) People often use presentation software to create a slideshow to display information.

(i) Give **two** reasons why you would use a Template when creating a slideshow. [2]

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

(ii) Give **one** disadvantage of using presentation software. [1]

........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
........................................................................................................................................
3. Different types of Human-Computer Interfaces (HCI) are used on ICT systems.

(a) Name the types of HCI shown below. [2]

(b) Tick (√) the correct boxes to show which Application best matches the HCI. [3]
Another type of HCI is a Touch Sensitive interface.

(i) Other than mobile phones, give one type of device which uses a touch sensitive screen/interface. [1]

(ii) Give two advantages of using a touch sensitive screen/interface. [2]

   Advantage 1: ...............................................................................................................................................................

   Advantage 2: ...............................................................................................................................................................

(iii) Give one disadvantage of using a touch sensitive screen/interface. [1]
4.  (a) Give three techniques used to manipulate digital images. [3]

   Technique 1: ............................................................................................................................................................................
   Technique 2: ............................................................................................................................................................................
   Technique 3: ............................................................................................................................................................................

   (b) Give two advantages of vector graphics over bit mapped graphics. [2]

   Advantage 1: ............................................................................................................................................................................

   Advantage 2: ............................................................................................................................................................................
5. Describe how *Point of Sale* (PoS) systems are used in supermarkets for automatic stock control.
6. Different animation techniques are used to produce animations.

(a) Describe why animators create a *Storyboard*. [2]

(b) An animator has been asked to produce an animation that shows a car moving from one side of the screen to the other.

Name **two** suitable *animation techniques* that the animator could use and explain *how* these animation techniques would be used to produce the car animation shown above. [2 x 3]

**Animation Technique 1:** ..................................................................................................................................................

**Animation Technique 2:** .................................................................................................................................................
7. A computer database is used to store details on all the cars a garage has for sale. Part of the database is shown below.

<table>
<thead>
<tr>
<th>Registration Number</th>
<th>Type</th>
<th>Colour</th>
<th>Engine</th>
<th>Fuel</th>
<th>Price (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT57 WPD</td>
<td>Estate</td>
<td>B</td>
<td>2500</td>
<td>D</td>
<td>6,000</td>
</tr>
<tr>
<td>DR01 GJA</td>
<td>4 × 4</td>
<td>G</td>
<td>3500</td>
<td>D</td>
<td>23,995</td>
</tr>
<tr>
<td>AB51 CKB</td>
<td>Saloon</td>
<td>B</td>
<td>3000</td>
<td>P</td>
<td>32,565</td>
</tr>
<tr>
<td>KD55 NKT</td>
<td>Estate</td>
<td>R</td>
<td>1600</td>
<td>P</td>
<td>8,000</td>
</tr>
<tr>
<td>AC09 UDR</td>
<td>Hatchback</td>
<td>S</td>
<td>2000</td>
<td>D</td>
<td>9,654</td>
</tr>
<tr>
<td>MY02 MDT</td>
<td>4 × 4</td>
<td>B</td>
<td>3000</td>
<td>D</td>
<td>25,895</td>
</tr>
<tr>
<td>CP51 ANC</td>
<td>Hatchback</td>
<td>O</td>
<td>2200</td>
<td>P</td>
<td>14,995</td>
</tr>
</tbody>
</table>

(a) Give one problem that could occur with encoding colours, as in the Colour field above, and suggest a suitable solution to the problem. [2]
(b) One advantage of using ICT to store data is that less storage space is needed, for example, no filing cabinets are required.

Describe other advantages and disadvantages of keeping data on a computer system. [4]
8. (a) **Tick (✓) the correct boxes to show whether each of the following statements about an Operating System is True or False.**

<table>
<thead>
<tr>
<th>STATEMENT</th>
<th>TRUE</th>
<th>FALSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>An operating system is a type of hardware</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>An operating system ensures that data is written to the backing store correctly</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>A computer will not work unless it has an operating system.</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

(b) **For each of the following examples of use, state the most suitable processing method. The first one has been done for you.**

<table>
<thead>
<tr>
<th>Example of use</th>
<th>Processing method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controlling a nuclear reactor</td>
<td>Real-time Control Processing</td>
</tr>
<tr>
<td>Booking theatre tickets</td>
<td></td>
</tr>
<tr>
<td>Processing electricity meter readings to produce a bill</td>
<td></td>
</tr>
</tbody>
</table>
9. Online banking is becoming popular.

(a) State two services offered to online banking customers. [2]

Service 1: ....................................................................................................................................................................................

Service 2: ....................................................................................................................................................................................

(b) Give two benefits of online banking to customers. [2]

Benefit 1: ....................................................................................................................................................................................

Benefit 2: ....................................................................................................................................................................................

(c) Give one concern that customers may have with the use of online banking. [1]
10. The use of ICT has had an impact on the way people work.

(a) State what is meant by Teleworking. [1]

(b) Give two advantages of teleworking for the Employee. [2]

   Advantage 1: .............................................................................................................................................................................

   Advantage 2: .............................................................................................................................................................................

(c) Give two advantages of teleworking for the Employer. [2]

   Advantage 1: .............................................................................................................................................................................

   Advantage 2: .............................................................................................................................................................................

(d) Give one advantage of teleworking to Society. [1]
11. Tick (√) to show your chosen business application from the list below.

Tick (√)

Robotics  
Expert systems  

(a) Give one specific use of ICT in your chosen application. [1]

(b) State one method of data capture used in your chosen application. [1]

(c) Give two advantages of using ICT in your chosen application. [2]

Advantage 1: .............................................................................................................................................................................

Advantage 2: .............................................................................................................................................................................

(d) Give one disadvantage of using ICT in your chosen application. [1]
12. ‘The misuse of ICT has led to an increase in crime and socially related offences.’

Identify two such crimes or offences, illustrating each with a suitable example. Outline the different consequences for victims, organisations or society. Describe, in detail, different ways in which they can be prevented or minimised.

*Remember that the quality of written communication will be assessed in this question.*