

# 6-A-Day – Computer Science GCSE (p1.4-2016)

<p>Q1</p>	<ul style="list-style-type: none"> <li>The computers are geographically remote/ distanced/ more than a mile apart</li> <li>Communication medium is not owned by the law firm</li> </ul>	<p>1 (AO1 1a)</p>	<p>1 mark only to be awarded for a correct definition.</p> <p>Accept responses such as the company doesn't own the infrastructure</p> <p>Do not accept 'Network over a wide area' or similar arrangement of wording</p>																												
<p>Q2</p>	<p>Two advantages from:</p> <ul style="list-style-type: none"> <li>It would offer additional storage (1) so the firm can take on more cases (1)</li> <li>It is a very efficient method of backing up data (1) and so saves the firm time and money (1)</li> <li>It would allow their employees to work from anywhere (1) so they can take cases from other countries (1)</li> <li>It is environmentally friendly (1)</li> <li>Easy to increase availability of storage (1)</li> <li>You don't need specialist network skills (1) so the firm don't need to employ more staff (1)</li> <li>The third party provides security (1) so the firm saves money on staff and software/hardware (1)</li> <li>The third party provides backup (1) so the firm saves money on staff and software/hardware (1)</li> <li>Cheaper as don't need own infrastructure (1)</li> </ul> <p>Each advantage needs to be contextualised to gain 2 marks.</p>	<p>4 (AO2 1b)</p>	<p>1 mark is to be awarded for each correct advantage, with a mark for a discussion of the advantage related to the law firm. To a maximum of 2 advantages.</p> <p>The total number of marks to be awarded for this task is 4 marks.</p> <p>Responses which are not contextualised will gain a maximum of 1 mark per advantage (to a maximum of 2 advantages)</p>																												
<p>Q3</p>	<p>Two disadvantages from:</p> <ul style="list-style-type: none"> <li>You need a constant internet connection (1) which lawyers who travel a lot may not always have (1)</li> <li>Reliant on third party to carry out security procedures (1) but the firm are still legally responsible if things go wrong (1)</li> <li>Reliant on third party for back up connection (1)</li> <li>Data stored in the cloud will be vulnerable to hacking and other threats (1) which the firm have no control over (1)</li> <li>Issues regarding data ownership (1)</li> <li>Implications of Data Protection Act (1)</li> </ul> <p>Each disadvantage need to be contextualised to gain 2 marks</p>	<p>4 (AO2 1b)</p>	<p>1 mark is to be awarded for each correct disadvantage with a mark for a discussion of the disadvantage related to the law firm. To a maximum of 2 disadvantages.</p> <p>The total number of marks to be awarded for this task is 4 marks.</p> <p>Responses which are not contextualised will gain a maximum of 1 mark per disadvantage (to a maximum of 2 disadvantages)</p>																												
<p>Q4</p>	<p>1 mark per bullet to max 2</p> <ul style="list-style-type: none"> <li>For <b>long term/permanent/non-volatile</b> storage // storing when the device is turned off</li> <li>To <b>store</b> the videos / data / files</li> <li>For <b>transferring</b> the videos (to another device)</li> </ul>	<p>2 AO2 1a (1) AO2 1b (1)</p>	<p>Do not award capacity.</p> <p>Bullet 3 – portable is not enough, needs application.</p> <p>Bullet 2 – must identify the data is stored. For videos accept data or any other term that signifies the data is being stored/transferred e.g. photos/images.</p> <p>Accept any alternative for transfer e.g. sending/exporting.</p>																												
<p>Q5</p>	<table border="1"> <thead> <tr> <th>Action</th> <th>Data Protection Act 1998</th> <th>Computer Misuse Act 1990</th> <th>Copyright Designs and Patents Act 1988</th> </tr> </thead> <tbody> <tr> <td>Using a picture for the law firm's new logo without the original creator's permission</td> <td></td> <td></td> <td>✓</td> </tr> <tr> <td>A secretary accessing a lawyer's personal email account without permission</td> <td></td> <td>✓</td> <td></td> </tr> <tr> <td>Making a copy of the latest Hollywood blockbuster movie and sharing it with a client</td> <td></td> <td></td> <td>✓</td> </tr> <tr> <td>Storing customer data insecurely</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>A lawyer installing a key logger on the secretary's computer</td> <td></td> <td>✓</td> <td></td> </tr> <tr> <td>Selling client's personal data to a marketing company without their permission</td> <td>✓</td> <td></td> <td></td> </tr> </tbody> </table>	Action	Data Protection Act 1998	Computer Misuse Act 1990	Copyright Designs and Patents Act 1988	Using a picture for the law firm's new logo without the original creator's permission			✓	A secretary accessing a lawyer's personal email account without permission		✓		Making a copy of the latest Hollywood blockbuster movie and sharing it with a client			✓	Storing customer data insecurely	✓			A lawyer installing a key logger on the secretary's computer		✓		Selling client's personal data to a marketing company without their permission	✓			<p>6 (AO1 1b)</p>	<p>1 mark for each tick in the correct box.</p> <p>0 marks for a row with more than one tick.</p>
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Q6

**Mark Band 3–High Level  
(6-8 marks)**

The candidate demonstrates a thorough knowledge and understanding of a wide range of considerations in relation to the question; the material is generally accurate and detailed.

The candidate is able to apply their knowledge and understanding directly and consistently to the context provided. Evidence/examples will be explicitly relevant to the explanation.

The candidate is able to weigh up both sides of the discussion and includes reference to the impact on all areas showing thorough recognition of influencing factors.

*There is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.*

**Mark Band 2–Mid Level  
(3-5 marks)**

The candidate demonstrates reasonable knowledge and understanding of a range of considerations in relation to the question; the material is generally accurate but at times underdeveloped.

The candidate is able to apply their knowledge and understanding directly to the context provided although one or two opportunities are missed.

Evidence/examples are for the most part implicitly relevant to the explanation. The candidate makes a reasonable attempt to discuss the impact on most areas, showing reasonable recognition of influencing factors.

*There is a line of reasoning presented with some structure. The information presented is in the most part relevant and supported by some evidence.*

**Mark Band 1–Low Level  
(1-2 marks)**

The candidate demonstrates a basic knowledge of considerations with limited understanding shown; the material is basic and contains some inaccuracies.

The candidate makes a limited attempt to apply acquired knowledge and understanding to the context provided.

The candidate provides nothing more than an unsupported assertion.

*The information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.*

**0 marks**

No attempt to answer the question or response is not worthy of credit.

8

The following is indicative of possible factors/evidence that candidates may refer to but is not prescriptive or exhaustive:

AO2 1a (4)

AO2 1b (4)

**Indicative Content:**

Stakeholders

- Can adversely affect people in this country and abroad:
  - health issues
  - financially
  - socially
  - culturally
- The phone manufacturers
- The phone shops/networks

Technology

- The type of devices that are disposed of
- Modern phones poorly designed for durability
- Phones hardware not upgradeable/replaceable
- Proprietary technology used by some manufacturers

Environmental

- Reference to e-waste (people dispose of their devices in landfill even if they are in good working order)
- Some equipment is also sent abroad to be disposed of
- Leads to excessive landfill (in this country and/or abroad, e.g. Africa and Asia)
- Toxic waste released into land, ground water, air (in this country and/or abroad, e.g. Africa and Asia)
- Waste of resources  
Precious metals in phones

Ethical Issues

- Contributes to ill health
- Contributes to the digital divide
- Contributes to social divide
- Problem of confidential data stored on the devices
- Puts social pressure on parents to pay for their children to upgrade
- Puts social pressure on the public to upgrade
- Can lead to bullying of those who cannot afford the latest technology
- Phone manufacturers intentionally designing fragile phones so they need to be replaced more often
- High cost of new devices.