

## Question

Bill runs a factory that makes teddy bears. Several employees are required to make them by hand as part of the production line. He has decided to use an automated production line that will make the teddy bears instead of them being hand-made.

1) Identify and describe **two** new computing jobs that may be required. [4]

2) Discuss the impacts of mobile technologies on employers and employees. Your answer should include both benefits and concerns. [8]

3) Discuss the benefits and risks of autonomous vehicles being used by Bill's employees commuting to and from work. [8]

4) Identify which law has been broken in each of the following scenarios and explain why the law has been broken:

a) A customer of a bank gets married and changes her name from Miss White to Mrs Walters. She sends her bank a copy of her birth certificate and marriage certificate and asks for her name to be changed. Six months later, she receives a letter addressed to Miss White. [1]

b) A student discovers a teacher's password. The student logs on to the school network using the teacher's username and password. [1]

c) A school is asked by a parent for the names and addresses of all teachers who have been given early retirement in the last 5 years. The school provides this information. [1]

d) A driver is stopped by the police for not having insurance. The driver knows he has insurance because he purchased it from a local insurance broker. He later discovers that the insurance broker lost his details because their computer system crashed. [1]

5) Discuss the advantages and disadvantages of using cloud storage.

In your answer you should consider any legal, cultural, ethical and environmental issues related to the use of cloud storage. [8]

6) Discuss the advantages and disadvantages of using social media.

In your answer you should consider any legal, cultural and ethical issues related to the use of social media. [8]

## GCSE Computer Science - Chapter 5-4 - Question Template

Note: 8 mark questions will be assessed using the mark scheme below:

| Level | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Mark Range |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 3     | Answer demonstrates a <b>thorough knowledge and understanding</b> of a <b>wide range of considerations</b> . The answer is generally <b>accurate</b> and <b>detailed</b> . Knowledge and understanding is <b>applied consistently to the context</b> provided. <b>Examples will be explicitly relevant</b> to the explanation. The answer <b>weighs up both sides</b> of the discussion and includes reference to the <b>impact on all areas</b> showing <b>thorough recognition of influencing factors</b> . There is a <b>well-developed line of reasoning</b> which is <b>clear and logically structured</b> . The answer is <b>relevant</b> and <b>substantiated</b> . | 6-8        |
| 2     | Answer demonstrates a <b>reasonable knowledge and understanding</b> of a <b>range of considerations</b> . The answer is generally <b>accurate</b> but at times <b>underdeveloped</b> . Knowledge and understanding is <b>applied directly</b> to the context provided although <b>one or two opportunities are missed</b> . <b>Examples will be implicitly relevant</b> to the explanation. The answer includes reference to the <b>impact on most areas</b> showing <b>reasonable recognition of influencing factors</b> . There is a <b>line of reasoning</b> with <b>some structure</b> .                                                                               | 3-5        |
| 1     | Answer demonstrates a <b>basic knowledge of considerations</b> with <b>limited understanding</b> . The answer contains <b>inaccuracies</b> and is <b>basic</b> . <b>Limited attempt</b> to apply knowledge and understanding. There is an <b>unsupported assertion</b> . There is <b>no structure</b> and information is <b>basic</b> .                                                                                                                                                                                                                                                                                                                                    | 1-2        |
| 0     | No creditworthy answer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0          |

Your answer to discussion questions should:

- be detailed enough to demonstrate your knowledge of the topic area
- use examples of real-world use of computing relevant to the topic area
- be accurate
- consider different points of view
- consider the effects of computing for that topic area on individuals, organisations and society in general
- be structured with an introduction, paragraphs for each discussion and a conclusion