Answer **all** the questions.

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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  |  | | --- | --- | |  |  | | **1.** | A law firm currently use a Local Area Network (LAN) linked to a Wide Area Network (WAN).  **Fig. 3** lists some actions that may take place in the law firm's office. Tick (✓) **one** box in each row to show which legislation applies to each action.  C:\core\files\questions\1484239160\J276ComputerScienceJ276-01NewSAM\img\p9_01_150.png  **[6]** | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  |  | | --- | --- | |  |  | | **2(a).** | A school uses off the shelf, proprietary software for managing pupils' attendance, and customised, open source software for managing pupils' examinations.  Describe the difference between proprietary and open source software.        **[2]** | |  |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  |  | | --- | --- | |  |  | | **(b).** | \* Explain the legal issues that a school should consider when choosing the software for managing pupils' attendance and examinations.  The quality of written communication will be assessed in your answer to this question.                                **[6]** | | |
| |  |  |  |  |  | | --- | --- | --- | --- | --- | | |  |  | | --- | --- | |  |  | | **3.** | \*Lauren is a Computing teacher. She is building a website for her Computing class where they can share ideas, send each other programs and discuss computing concepts. The students will have individual accounts that they can log into.  Discuss the ethical and legal issues Lauren will have to consider when setting up the website.  The quality of your written communication will be assessed in your answer.                                    **[6]** | | |

**END OF QUESTION PAPER**

# Mark scheme

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Question** | | | **Answer/Indicative content** | **Marks** | **Part marks and guidance** | |
| 1 |  |  | |  |  |  |  | | --- | --- | --- | --- | | **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 | ✓ |  |  | | 6 | 1 mark for each tick in the correct box.  0 marks for a row with more than one tick. |  |
|  |  |  | **Total** | **6** |  | |
| 2 | a |  | * Proprietary software cannot be copied / altered (without permission of the copyright owner) * Open source software can be modified (provided it remains open source) * Proprietary software is distributed only as a compiled program / source code not available * Open source software is distributed with its source code.   Mark in pairs | 2 | Not cost / free  **?Examiner's Comments ?**? This part was a little disappointing. The question asked candidates to give the fundamental differences between the types of software given, and instead candidates listed everything they knew about them in particular their relative benefits and disadvantages (and often not the crucial fundamental difference). It was sufficient to say that open source licences require that source code be made available while proprietary software restrict the availability and public use of sort code. We still have several candidates who write that the difference is that open source software is free of charge – this is true of a lot of proprietary software. |  |
|  | b |  | Points may include:   * Must abide by software licence * So for open source, the school will be able to make modifications / customisations to exams system * But will probably have to make these modifications also available to other users * And credit all previous contributors in the code * Will have to purchase off the shelf attendance package legally * Software must be able to ensure all legal data protection requirements are met. | 6 | Candidates are most likely to discuss copyright issues to do with software licensing and / or data protection issues to do with pupils' personal data. Consider any relevant legal issues. It is the quality of discussion, not the breadth of issues that determines the level (eg it is possible to score a high level mark with a detailed description of copyright issues only). | **High Level Response (5–6 marks)** A detailed description of legal issues linked to the scenario in the question. There will be few if any errors in spelling, grammar and punctuation. Technical terms will be used appropriately and correctly.  **Medium Level Response (3–4 marks)** A description of legal issues and an attempt to link this to the scenario. Either the description of the issues or the links to the scenario may be weak. There may be occasional errors in spelling, grammar and punctuation. Technical terms will be mainly correct.  **Low Level Response (1–2 marks)** Candidate outlines some obvious legal issues vaguely relevant to a school context. Information will be poorly expressed and there will be a limited,  if any, use of technical terms. Errors of grammar, punctuation and spelling may be intrusive.  **Response not worthy of credit (0** marks) **? Examiner's Comments ?**? was the more difficult of the two quality of written communication questions. It was intended to be open ended allowing candidates to take different approaches to demonstrate their understanding by applying their knowledge on two separate parts of the specification and demonstrate their understanding by connecting them to each other and to a given context. As expected the most able candidates did this well and were able to score in the high level band. Most other candidates focused either on legal issues or on different ways of acquiring software without making strong links between the two. |
|  |  |  | **Total** | **8** |  | |
| 3 |  |  | \* Points may include: **Legal**   * Data Protection Act * Rules of DPA * Keeping data secure, need for firewall, anti-virus * Methods of restricting access * Intellectual property / copyright / licences   **Ethical**   * Storing and access to personal information * Rules / terms set up before people can join * Consequences for misconduct e.g. cyberbullying * Plagiarism * Communication of inappropriate materials for students / school / teacher * Backing up to preserve / save data * Gaining parental consent for communication online * E-safety * Acceptable use policy | 6 | **High Level Response (5–6):**  A detailed discussion of the ethical **and**legal issues, with clear explanations that are linked to the scenario. There will be few if any errors in spelling, grammar and punctuation. Technical terms will be used appropriately and correctly.  **Medium Level Response (3–4):** A description of some ethical **and / or** legal issues with some explanation / justification. Material may not be explicitly linked to the context. There may be occasional errors in spelling, grammar and punctuation. Technical terms will be mainly correct.  **Low Level Response (1–2):** There is an attempt to describe either a legal issue **and / or** ethical issue. The points are poorly expressed and / or not related to the context. There is limited, if any, use of technical terms. Errors in grammar, punctuation and spelling may be intrusive.   **Examiner's Comments**  The majority of candidates wrote a reasonable, structured response to this question. The most common legal issues identified were the Data Protection Act and copyright. Some candidates found the ethical issues more difficult to identify, and confused these with legal issues. The responses given were often well contextualised to the situation. |  |
|  |  |  | **Total** | **6** |  | |