

8(a)	1 mark for each correct explanation, max 2 marks Virus: Malicious program/software that replicates/copies itself and deletes/alters files/data stored on a computer Pharming: Malicious code/software installed on a computer which redirects user to a fake website to obtain personal data
8(b)	1 mark per bullet point, max 3 marks e. g. • Students should consider privacy issues • Students should not make inappropriate use of social networking // Students should not engage in cyberbullying • Students should not copy work that is not their own • Students should abide by the school rules/guidelines for accessing the network • Students should only use the school network for legitimate purposes • Students should not hack / crack other computers
8(c)	1 mark per bullet point, max 4 marks e. g. Negative Impacts • If students use AI to shortcut learning, they may miss out on developing reasoning and problem-solving skills // Students may not be learning anything // It could lead to a decline in specific skills • It could have negative impacts on student communication // heavy reliance on AI may limit opportunities for collaboration, teamwork, and face-to-face communication • Emphasises the digital divide// some students may not have access to the technology • The AI answer might not be correct leading to mis-information • Increased screen time and isolation could contribute to anxiety or loneliness Positive Impacts • Students given additional support may do better • Pupils who struggle in traditional settings may gain self-esteem through AI-assisted learning at their own pace Long-Term Impacts • Protection of intellectual property // ethical issues and considerations • Schools may need to redesign curricula and/or assessment to integrate AI

2(a)	1 mark for each correct row, max 4 marks <table border="1"> <thead> <tr> <th data-bbox="368 185 603 248">Term</th><th data-bbox="603 185 1291 248">Description</th></tr> </thead> <tbody> <tr> <td data-bbox="368 248 603 349">Copyright</td><td data-bbox="603 248 1291 349">Gives the holder the legal right of ownership of intellectual property</td></tr> <tr> <td data-bbox="368 349 603 450">Open Source (Initiative)</td><td data-bbox="603 349 1291 450">Software can be freely copied, distributed or adapted</td></tr> <tr> <td data-bbox="368 450 603 551">Shareware</td><td data-bbox="603 450 1291 551">Gives the user a trial period / limited functionality before a payment/sign up may be required</td></tr> <tr> <td data-bbox="368 551 603 647">Software Licence</td><td data-bbox="603 551 1291 647">A (legal) agreement that defines the rights and terms of usage for the software</td></tr> </tbody> </table>	Term	Description	Copyright	Gives the holder the legal right of ownership of intellectual property	Open Source (Initiative)	Software can be freely copied, distributed or adapted	Shareware	Gives the user a trial period / limited functionality before a payment/sign up may be required	Software Licence	A (legal) agreement that defines the rights and terms of usage for the software
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2(b)	1 mark per bullet point, max 2 marks e.g. • to create a safe, respectable and professional working environment for all employees • to ensure that employees understand the expectations • ... and the consequences of their actions • to provide a clear outline of what is considered good practice • so there are clear rules to follow in certain situations • to protect the reputation of the organisation // maintain public trust										

3(a)	1 mark each to max 4 e.g. • Uses image recognition // optical character recognition • to analyse a photograph/pixels to identify the location of characters within an image • in order to convert the pattern of pixels into individual characters • Uses natural language • to combine the characters into words • and compare the words to database to identify a match in the language of the writing • it may also predict what is missing / incomplete / from what has been read • then compare the words to a database of the user's chosen language to find a match and translate • Uses text-to-speech • to generate the audio waveforms corresponding to the words
3(b)	1 mark each to max 2 e.g. • It can help people with visual impairment to identify which products to purchase • It can help people who cannot understand the language • It can help to overcome learning / reading difficulties
3(c)(i)	1 mark each to max 3 • The program is usually sold for a fee • Users have no access to source code • It protects the intellectual rights of the programmer / developer • Users cannot legally alter or share the program • There are limitations on the use of the software e.g. number of times it can be installed • Support and maintenance is usually provided e.g. updates, bug fixes etc.
3(c)(ii)	1 mark each to max 3 e.g. • The source code would be accessible therefore it could be changed • which might lead to the program outputting an incorrect response • so people could purchase the wrong item • which might have serious consequences // by example e.g. allergies

7(a)	1 mark for each bullet point (max 2) - The user can test/trial the program before purchasing to see whether it meets needs - There is no initial cost - Users who try the software may spread the word so the developer gets more custom - The developer can get feedback to improve the program
7(b)	1 mark for each bullet point (max 2) - The owner/developer can earn a fee - Comprehensive support is usually offered so problems can be easily solved - The software is usually well tested so few bugs

5(a)	1 mark for each bullet point max 2 for public max 2 for colleagues e.g. Colleagues: The programmer should: - Treat colleagues fairly and avoid acts of discrimination - Be prepared to accept / offer critique ... so that technical work can be improved - Credit the contributions of colleagues ... so that they feel valued / respected - Help / train colleagues etc. e.g. The public: The programmer should: - Maintain the health, safety and welfare of the public ... so as not to endanger anyone - Be honest / realistic in making claims about the software ... so that public trust is maintained - Maintain the security of the public's data etc.
5(b)(i)	Type of software licence 1 mark for - Open Source Initiative // Free Software Foundation Reason for choice: 1 mark for each bullet point (max 2) - Allows program source code to be examined ... so that the business can adapt/modify the program to meet their needs - Allows the programmer to earn money for the software and updates
5(b)(ii)	1 mark for each bullet point (max 2) - To identify themselves as the owner/author // To gain formal recognition of ownership - To allow for legal consequences if anyone steals/copies it - To restrict competition

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5(b)	1 mark for each bullet point (max 3) e.g. • The professional ethical body has ethical guidelines to follow • ... so clients/other staff know the standards being applied • ... so the computer programmer does not have to decide what is ethical it's written down • Clients/staff know the computer programmer is reputable • ... there may be a test/requirement for entry • ... giving recognition of the computer programmer's skills/knowledge • The professional ethical body provides help and support • ... for example, if the computer programmer needs legal advice • The professional ethical body runs training courses • ... to keep the computer programmer's skills up to date								