

EDULiTO

Moral, Ethical and Environmental Issues

Topic Tests



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Topic Test Ethical, legal, cultural and environmental concerns

1. (a) What is meant by the term digital divide?

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(b) Describe the impact of the digital divide on each of these groups. [4]

(i) People living on low incomes.

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(ii) People living in remote locations far from urban centres.

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(iii) Senior citizens with no experience of using technology.

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(iv) People with disabilities

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2. In the past a lot of personal data was stored on a person's home computer, whereas many people now store personal data online, using cloud storage. List two ethical questions that can be raised in relation to the storage of personal data moving from an individual computer to online, or cloud, storage? [2]

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3. The way technology is being used within a family unit is changing. Describe two ways in which the use of technology has impacted on the culture of the family unit? [2]

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4. A carbon footprint can be defined as: The total amount of greenhouse gases produced to directly and indirectly support human activities, usually expressed in tons of carbon dioxide (CO₂).

(a) Describe two ways in which the use of the Internet can contribute to a reduction in a teleworkers carbon footprint. [2]

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(b) Describe how the increase in the use of cloud services can be harmful to the environment? 2]

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5. In relation to the Data Protection Act (1998), list three of the rights of the data subject.[3]

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2.....
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3.....
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6. Which act of parliament protects the general public from the unauthorised access of computer materials? [1]

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7. What two pieces of advice would you give someone to ensure that they are not prosecuted under the Copyright, Designs and Patents Act (1988)? [2]

1.....
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2.....
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8. What is a creative commons licence? [2]

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9. Explain how the Freedom of Information Act (2000) can be of benefit to the general public. [1]

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10. (a) What is open source software? [1]

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(b) What is proprietary software? [1]

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(c) What are the advantages and disadvantages of open source software and proprietary software for the consumer? [4]

Software Type	Advantages	Disadvantages
Open Source		

Proprietary		
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Topic Test 1.8 Ethical, legal, cultural and environmental concerns - Mark Scheme			
Question Number	Answer	Additional Guidance	Mark
1 a	The gulf between those who have ready access to computers and the Internet, and those who do not. [1]		1
1 b i	Cannot afford to pay for technology [1]		1
1 b ii	Less access to broadband internet [1]		1
1 b iii	Harder for older people who are 'offline' to access vital services and could deter people from seeking the support they need. [1]		1
1 b iv	Devices not always designed to suit the needs of people with disabilities. [1]		1
2	Who owns the data? [1] Where is the data stored? [1] Who has access to the data? [1] Who has access to the metadata? [1] Which countries laws apply to the protection of this data? [1]	Max 2	2
3	Families have opportunities for more regular communications via smart phones and other devices. [1] In the past there was a need to share a single device e.g. TV and watching TV was a shared experience but now every individual within a household can access media on their own device. [1] Parents have lost control over how their children communicate with their friends. [1]	Max 2	2
4 a	Teleworkers can use the internet to send emails rather than post letters therefore no delivery vehicles required. [1] Teleworkers do not need to physically travel to work therefore reducing their carbon footprint. [1] Teleworkers do not need to attend meetings as they can instead use video conference software. [1] Teleworkers do not need to print off files and so there is a reduction in paper usage. [1] The employer does not need to provide the electricity and lighting for their employee. [1]	Max2	2
4 b	The growth in the number and size of data centres is an issue. [1] Data centres require large amounts of electricity to power the servers and they also need to power air conditioning units to cool down the servers. [1] Technology uses 10% of the world's energy. [1]	Max 2	2

GCSE Computer Science (9-1)- Ethical, Moral and Environmental Issues - Topic Tests

5	<ul style="list-style-type: none"> • a right of access to a copy of the information comprised in their personal data. [1] • a right to object to processing that is likely to cause or is causing damage or distress. [1] • a right to prevent processing for direct marketing. [1] • a right to object to decisions being taken by automated means. [1] • a right in certain circumstances to have inaccurate personal data rectified, blocked, erased or destroyed. [1] • a right to claim compensation for damages caused by a breach of the Act. [1] 	Max 3	3
6	The Computer Misuse Act (1990) [1]		1
7	<p>Do not do anything without the permission of the copyright holder. [1]</p> <p>Do not copy the work. [1]</p> <p>Do not rent, lend or issue copies of the work to the public. [1]</p> <p>Do not perform, broadcast or show the work in public. [1]</p>	Max 2	2
8	<p>A Creative Commons license enable the free distribution of copyrighted work. [1]</p> <p>It is used when an author wants to give people the right to share, use, and build upon a work that they have created. [1]</p>		2
9	The Freedom of Information Act 2000 creates a public "right of access" to information held by public authorities. [1].		1
10 a	<p>Open source software is free and openly available to everyone. [1]</p> <p>People who create open source products publish the code and allow others to use and modify it. [1]</p>	Max 1	1
10 b	<p>Proprietary software is software that legally remains the property of the organisation, group, or individual who created it. [1]</p> <p>The organisation that owns the rights to the product usually does not release the source code, and may insist that only those who have purchased a special licence key can use it. [1]</p>	Max 1	1

