

Target: \_\_\_/ 41 or \_\_\_\_ % 👍 👎

41

Year 9 Digital Citizenship

***Task 2: In Class Content Assessment and Validation (17.5 % weighting)***

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Time: 5 minutes reading time and 45 minutes working time.**

**PART A: MULTIPLE-CHOICE QUESTIONS**

Circle the correct answer to the following questions. (1 mark each)

**1 Which of the following is NOT a common method used in engineering cyber attacks?**

a) Phishing

b) Denial of Service (DoS)

c) Spear Phishing

d) Pretexting

**2** **Identify the primary purpose of a firewall in cybersecurity?**

a) To encrypt data transmissions

b) To detect and prevent unauthorized access to or from a private network

c) To remove malware from a system

d) To create secure passwords for users

**3 Identify which of the following is a characteristic of a strong password?**

a) It contains only letters

b) It is less than 6 characters long

c) It includes a combination of letters, numbers, and special characters

d) It is easily guessable, such as "password123"

**4 Identify what the term "phishing" refer to in cybersecurity?**

a) The act of gaining unauthorized access to a computer system

b) A type of malicious software designed to block access to a computer system until a sum of money is paid

c) A method used by attackers to trick individuals into providing sensitive information

d) The process of encrypting data to prevent unauthorized access

**5 Identify the purpose of encryption in cybersecurity?**

a) To make data unreadable to unauthorized parties

b) To speed up data transmission over the internet

c) To increase the size of files for storage purposes

d) To prevent data loss in case of hardware failure

**6. Identify the purpose of multi-factor authentication (MFA)?**

a) To provide access to multiple users simultaneously

b) To authenticate users based on their geographic location

c) To verify a user's identity using two or more authentication methods

d) To encrypt data transmissions between servers

**7 Identify which of the following is NOT a common type of malware?**

a) Virus

b) Worm

c) Firewall

d) Trojan Horse

**8 Identify the primary goal of a Distributed Denial of Service (DDoS) attack?**

a) To gain unauthorized access to sensitive information

b) To encrypt data transmissions

c) To overwhelm a system with traffic, making it unavailable to legitimate users

d) To spread malicious software to other computers

**9 Identify which of the following is an example of a physical security measure to protect against unauthorized access to a computer system?**

a) Firewall

b) Encryption

c) Biometric authentication

d) Multi-factor authentication

**10 Identify the purpose of a Virtual Private Network (VPN) in cybersecurity?**

a) To scan for viruses on a computer system

b) To provide secure and encrypted connections over a public network

c) To authenticate users based on their biometric data

d) To remove malware from a computer system

**11 Identify what DDOS stands for?**

a) Direct Defence Operating System

b) Delicious Dinner Ordering Services

c) Digital Denial of Service.

d) Distributed Denial of Service

**12 Identify the role of a penetration tester in cybersecurity?**

a) To develop software patches for known vulnerabilities

b) To simulate cyber attacks on a system to identify security weaknesses

c) To manage access control lists for user accounts

d) To provide technical support for computer networks

**13 Identify which of the following organisations are not common victims of a DDOS attack?**

a) Government

b) Telecoms.

c) Schools

d) e-Commerce

**14 Identify what devices could be part of a zombie network (aka botnet)?**

a) Personal computers, smartphones and tablets

b) Internet of Things (IOT) – devices like smart thermostats

c) Network routers and

d) All of the above

**15 Identify which of the following is not a sign of a DDOS attack?**

a) Slow network performance

b) Unavailability of a particular website

c) Sudden increase in spam emails

d) Inability to access certain website

**PART B: SHORT ANSWER QUESTIONS**

|  |  |  |
| --- | --- | --- |
| **1** | Explain one method that can be used to protect against cyber security attacks. Use an example to support your response. | (5 marks) |

\_\_1 mark for identifying a method (eg. Firewall, DDOS)

2 marks for outlining the method

3 marks for explaining method.

1 mark for example/

1 mark for structure of response. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **2** | Discuss the role of physical security measures to protect information against unauthorised access to information. Use an example to support your response. | (5 marks) |

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2 marks for outlining the role

3 marks for discussing the role

1 mark for example (eg. Bioemetrics)

1 mark for structure of response. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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3 Outline Multi-Factor Authentication (MFA) and how it can enhance security? (3 marks)

\_\_1 mark for stating what MFA is.

1 mark for outlining MFA

1 mark for an example (eg. Sending a text to pay) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4 Outline the difference between Malware and a Virus. Use examples to support your response? (5 marks)

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1 mark for outlining virus

1 mark for structure of response (including words like whereas or however).

1 mark for example of malware

1 mark for example of virus

5. List three different ways that a worm can infect a system. (3 marks)

1\_Email attachments

2infected websites of downloads \_

3. removable media (usb’s)

*1 mark per correct answer (3 max)*

**PART C: Mix and Match**

1. Match the following terms to their correct definitions. (5 marks)

|  |  |  |
| --- | --- | --- |
| Spyware |  | Software that automatically displays or downloads advertising material such as banners or [pop-ups](https://www.google.com/search?sca_esv=862d19b374e0a29b&sca_upv=1&rlz=1C1ONGR_enAU1097AU1097&sxsrf=ADLYWIJaxNdGROFQfIyOhQ2kNjy4vbicVA:1715840264792&q=pop-ups&si=ACC90nypsxZVz3WGK63NbnSPlfCBLve73IMCMp2ZUWsAeyzrcGZiLcao0jsFt-q9oT0O-JmKfP7t5OwYZg7boo5_8EYjZ1lm1A%3D%3D&expnd=1&sa=X&ved=2ahUKEwigkuWLw5GGAxXqja8BHcneDuIQyecJegQIHhAQ) when a user is online. |
| Malware | A type of malware or malicious software that can replicate rapidly and spread across devices within a network |
| Adware | Software that enables a user to obtain [covert](https://www.google.com/search?sca_esv=862d19b374e0a29b&sca_upv=1&rlz=1C1ONGR_enAU1097AU1097&sxsrf=ADLYWIJZUOrEXmPa89c40mNBf9YDn5NODg:1715840206001&q=covert&si=ACC90nwzNcbSj6HKgPz_Y9fzn5jcHot6dNJ-TDEYjyAGRU-Ry6NusxoGEQmHb9hCAVx9UeBEA4mHw_mbpftmcOxnOrFKi1J3xw%3D%3D&expnd=1&sa=X&ved=2ahUKEwiF7ODvwpGGAxU6la8BHf7-DV4QyecJegQIHxAO) information about another's computer activities by [transmitting](https://www.google.com/search?sca_esv=862d19b374e0a29b&sca_upv=1&rlz=1C1ONGR_enAU1097AU1097&sxsrf=ADLYWIJZUOrEXmPa89c40mNBf9YDn5NODg:1715840206001&q=transmitting&si=ACC90nxgkPHmtVkpPj_lUgtQ0Aen4hwVBuSuMXFwrcXQMwko7DvC3NvGlOvTKor6gvOdyI1FbxMnmkkwyj91sp1jGbcALDHNpFNsCdG5bmIe8iOfxSvlpHc%3D&expnd=1&sa=X&ved=2ahUKEwiF7ODvwpGGAxU6la8BHf7-DV4QyecJegQIHxAP) data [covertly](https://www.google.com/search?sca_esv=862d19b374e0a29b&sca_upv=1&rlz=1C1ONGR_enAU1097AU1097&sxsrf=ADLYWIJZUOrEXmPa89c40mNBf9YDn5NODg:1715840206001&q=covertly&si=ACC90nwZKElgOcNXBU934ENhMNgqvVZP39idEoVZQIniLXHWL80PhwHgfdrFFrCCxPDpqVfKKsntIQRVP3MoFDK21reLVtTch0Zs8MbuNqREApDZGhj_yuY%3D&expnd=1&sa=X&ved=2ahUKEwiF7ODvwpGGAxU6la8BHf7-DV4QyecJegQIHxAQ) from their hard drive. |
| Virus | A piece of code that is capable of copying itself and typically has a [detrimental](https://www.google.com/search?sca_esv=862d19b374e0a29b&sca_upv=1&rlz=1C1ONGR_enAU1097AU1097&sxsrf=ADLYWIKUCg6eOVOpnKCAu-n4Pw559FoYcw:1715840309715&q=detrimental&si=ACC90nwKPQWKXvO0LWGU61hOTgoDv8AbjeoWIMRxeQgGYEYIUEkhFqFajAbDnTwj8brAhjv04Fr1QJA7oc2rU0b3yu6JI0rcxrqatu1xIj4dbAXKcxAhQW0%3D&expnd=1&sa=X&ved=2ahUKEwjYkpuhw5GGAxVtka8BHeuvCwMQyecJegQIHBAV) effect, such as [corrupting](https://www.google.com/search?sca_esv=862d19b374e0a29b&sca_upv=1&rlz=1C1ONGR_enAU1097AU1097&sxsrf=ADLYWIKUCg6eOVOpnKCAu-n4Pw559FoYcw:1715840309715&q=corrupting&si=ACC90nyOnVY18Aw7zUtkWPYo5mTnjZZtBjoK3Ddx4XsApPw48dz5OtaF10pMgux0ZZVnVaVYjiemrXPgaVkXutz2gtcYJu-Fss6SVfeUz7Mwi1gnaAplWW4%3D&expnd=1&sa=X&ved=2ahUKEwjYkpuhw5GGAxVtka8BHeuvCwMQyecJegQIHBAW) the system or [destroying](https://www.google.com/search?sca_esv=862d19b374e0a29b&sca_upv=1&rlz=1C1ONGR_enAU1097AU1097&sxsrf=ADLYWIKUCg6eOVOpnKCAu-n4Pw559FoYcw:1715840309715&q=destroying&si=ACC90nyOnVY18Aw7zUtkWPYo5mTnAKV6yoBDWYO8d-eeHddzGdxfKJkNuvnMVqEq1wDhm-Ab5k3XtF9aZg1EBmFnV1pi5ZcZMYST7qXOZ-Vv--vj79WdDzw%3D&expnd=1&sa=X&ved=2ahUKEwjYkpuhw5GGAxVtka8BHeuvCwMQyecJegQIHBAX) data. |
| Worm | Software that is specifically designed to [disrupt](https://www.google.com/search?sca_esv=862d19b374e0a29b&sca_upv=1&rlz=1C1ONGR_enAU1097AU1097&sxsrf=ADLYWIIdWJTSkdJmoxTxsgUvBAbQm_tGvQ:1715840235764&q=disrupt&si=ACC90nypsxZVz3WGK63NbnSPlfCBEut8cyuG3SBdReKklatMVOxWJVdiDX1b6-Em6JqvzPUa24Ff331LI6joocGI_jOd1av7Dw%3D%3D&expnd=1&sa=X&ved=2ahUKEwiEx_n9wpGGAxU4cPUHHV1dDSgQyecJegQIFhAO), damage, or gain unauthorized access to a computer system. |

**END OF TEST**