

# Data Level Protection 2 & Finding Weaknesses

## Task 1

(a) What do we mean by the term “Device Hardening”?

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(b) Below are three statements regarding backup & recovery. Identify which of these statements are true and which are false.

	True	False
1. Backups should be performed once a day.	<input type="checkbox"/>	<input type="checkbox"/>
2. Backups should be stored in a remote location.	<input type="checkbox"/>	<input type="checkbox"/>
3. Cloud storage is an example of a remote backup location.	<input type="checkbox"/>	<input type="checkbox"/>

(c) Backups are an effective method of protecting yourself against the threat of human error. Explain how this statement is true?

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## Task 2

(a) What do we mean by the term “encryption”?

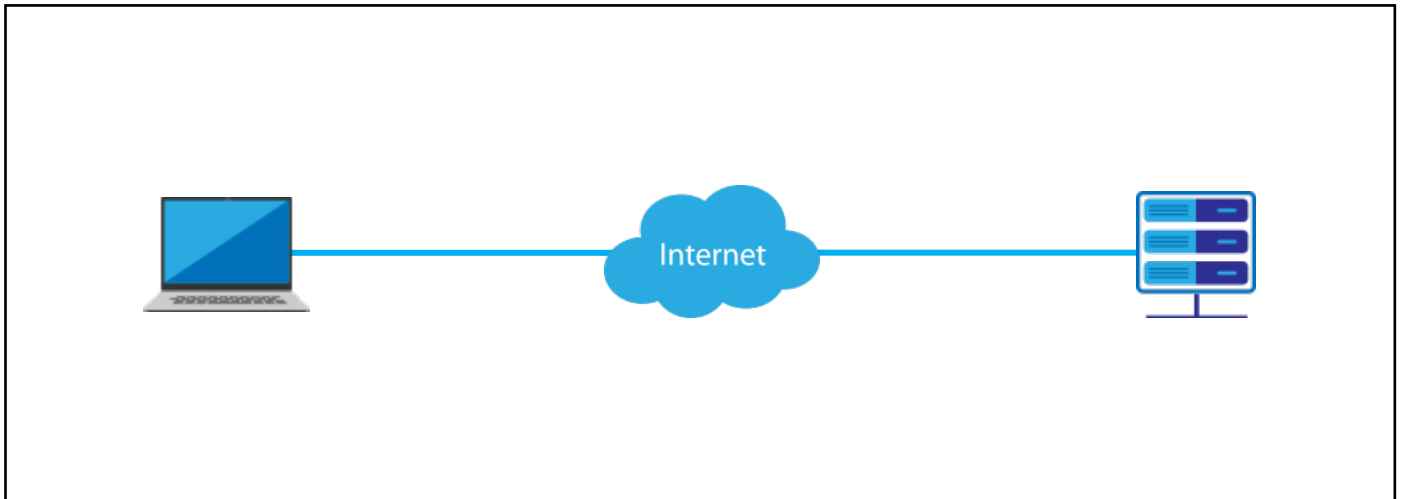
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(b) Websites will often use encryption to protect the data you are transferring to the website. Below is an example of such a website. Annotate on the drawing to show you know that it is using encryption.



The screenshot shows a web browser window with the URL <https://www.knowitallninja.com>. The page features the KnowItAll Ninja logo, navigation links (HOME, ABOUT, RESOURCES, COURSES), and buttons for SIGN IN and SUBSCRIBE. The main content area includes the text: **BTEC LEVEL 3 IT AND COMPUTING & BTEC LEVEL 2 DIT AND ICT**, followed by a paragraph: "Our BTEC Level 3 Computing & IT, BTEC Tech Award DIT and BTEC Level 2 ICT resources will help you to succeed in your studies. Use gamified elearning principles to achieve in your exams." and a prominent blue button labeled **GET STARTED!**. A large, colorful illustration of various icons (crown, rocket, lifebuoy, laptop, lightbulb, etc.) is positioned on the right side of the page.

(c) A common method of encrypting data during transmission is using public key encryption. Use the diagram below to explain how public key encryption works.



### Task 3

(a) Some hackers are known as Ethical Hackers. These can be split into two categories. White-hat hackers and grey-hat hackers. Explain what the difference is between these two types of ethical hackers.

White-hat hackers \_\_\_\_\_

Grey-hat hackers \_\_\_\_\_

(b) List below three different techniques used for penetration testing.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

(c) Jasmine is in charge of IT security for a medium sized law firm. She is considering hiring an ethical hacker to find weaknesses with the company's current IT security procedures. Discuss whether this would be a good idea to do.

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