

Y12 Unit 1
Sample Assessment Material

Answer ALL questions. Write your answers in the spaces provided.

1. GF Training provides training courses for industry in various locations around the country. The company has a head office in the Midlands. The company has a local area network (LAN) in the head office.

The network is used to:

- carry out day-to-day administration tasks
- store personal information about delegates and trainers
- store details of courses
- produce and store up-to-date training materials
- communicate internally and externally.

1. (a) Describe how two features of a local area network (LAN) can be used by GF Training.

4 marks

1 ...

2 ...

1. (b) GF Training must comply with the Data Protection Act 1988 when storing information about delegates and trainers. One principle of the Act states that 'personal data shall be processed fairly and lawfully'.

Explain **two** legal requirements that GF Training needs to comply with to ensure that it processes personal data 'fairly and lawfully'.

4 Marks

1 ...

2 ...

1. (c) GF Training has a pool of shared laptops that trainers use to access up-to-date training materials and information about delegates. Trainers often deliver courses on consecutive days in different locations. They use a virtual private network (VPN) to access the LAN.

Discuss the implications to the trainer of accessing training materials and delegate information using a VPN.

6 marks

...

- (d) Analyse the risks to data that arise from trainers using a pool of shared laptops and suggest measures that can be taken to reduce these risks.

8 marks

...

2. Josie is a student on a graphics design course at Swindhone College. As part of her course she has to manipulate and edit high resolution images. Josie uses a range of devices to complete her assignments.

2. (a) Josie has completed an assignment containing large files. She is going to submit the assignment to her tutor by email. Before submitting the work she compresses the files.

Explain **two** drawbacks for Josie's tutor of receiving compressed files.

4 Marks

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1 ...

2 ...

2. (b) Josie needs to choose between 'lossy' or 'lossless' compression to submit photographs to her tutor.

Explain **two** factors that Josie should consider when choosing a file compression type. **4 Marks**

1 ...

2 ...

2. (c) Tablet devices use solid state drives (SSD) rather than traditional hard disk drives (HDD).

Assess how the features of solid state drives (SSD) make them suitable for use in tablet devices. **6 Marks**

...

2. d) Josie is considering buying a laptop with an HDD to complete her graphics assignments.

Explain why Josie may prefer to buy a laptop with an HDD rather than an SSD. **3 Marks**

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2. e) Josie's new laptop has a pre-installed operating system.

Describe the role of the operating system in memory management. **3 Marks**

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2. (f) Josie is aware that data stored on her laptop is at risk of loss or corruption. She would like to keep the data secure. She has decided to set up a username and password on her laptop. The password must:

- be a minimum of 8 characters long
- be a mixture of upper/lower case and special characters
- only be attempted 4 times before access to the laptop is locked, and a text sent to Josie's mobile

Draw a flow chart of the process to show the password setting procedure **6 Marks**

3. Katalog is a large catalogue retailer with stores around the UK. Goods can be purchased in store or via the company website. Goods purchased online are delivered from a central warehouse. The company uses an automated stock control system throughout its stores and the central warehouse.

4. (a) Katalog is considering introducing a 'click and collect' service, where customers can order goods from the website and collect them in a local store. Katalog has decided to use an online questionnaire to gather opinions about the proposed system from potential customers.

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Explain **two** factors that Katalog would need to consider when designing the questions to ensure that the data collected is reliable. **4 Marks**

1 ...

2 ...

3. (b) The company uses an automated stock control system in the central warehouse for sales to online customers.

Analyse how the features of an automated stock control system will impact on the company and on online customers. **6 Marks**

3. (c) Many customers worry about the security of personal data when paying for goods and services online. HTTPS is a method used to secure data transmitted between a user and a website.

Describe how HTTPS is used to secure transmitted data. **4 Marks**

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3. d) The Web Content Accessibility Guidelines (WCAG) are designed to help make sure that web content is accessible to people with disabilities.

Explain **two** guidelines provided by WCAG that the designers of the Katalog website should follow to ensure that it is suitable for people with disabilities. **6 Marks**

1 ...

2 ...

4. Claersons is a small business with a head office based in the north east of England and offices in other parts of the UK. It has a network that is used to access all software and data. Claersons has decided to update its computer systems.

4. (a) Claersons is considering moving to using a Software as a Service (SaaS) cloud-based software and storage system, rather than replacing the existing systems with 'like for like' systems. The company believes that this change will bring benefits for both the company and the staff.

Analyse the benefits to Claersons and its staff of a move to a SaaS cloud-based software and storage system. **10 Marks**

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4. (b) Claersons have decided to invest in mobile technology for staff to use when they are in the office, travelling and when working with clients on architectural projects. The company intends to invest in a combination of tablet and laptop devices to be used alongside their current network and desktop PCs.

Evaluate the company's decision to invest in mobile technology. **12 Marks**

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Name _____