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Digital Information Technology

Component 3: Effective Digital Working Practices

Pearson BTEC Level 1 / Level 2 Award in Digital Information Technology

Date of Exam

Assessment time: 1 hour 30 minutes Total marks 60

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

Task 1:

Bill owns a cycle and repair shop. The shop sells bicycles and accessories such as spare parts and clothing.

Bill uses a cloud computing service for his accounting software. The application is held by the software company in the cloud.

(a) Describe the method Bill uses to access his account online. [2 marks]

All of Bill’s accounting data is held in the cloud. This includes customer data, sales data and product details.

(b) Explain **two** advantages to Bill of holding his accounting software and data   
in the cloud. [4 marks]

**Advantage 1:**

**Advantage 2:**

The data that Bill holds includes personal data for all customers who leave a bike at his shop to be repaired. The data has to be kept securely with password protection.

(c) Give **two** requirements that are likely to form part of the password policy. [2 marks]

**1:**

**2:**

(d) Bill uses social media to advertise his business. Discuss the advantages and disadvantages of using this method of advertising to both Bill and his shop. [6 marks]

**[Total for Task 1 = 14 marks]**

Task 2:

Hampton Cinema is a small independent cinema.

Cinema goers may book and pay online via the cinema’s website to see a film.   
The management of Hampton needs to make sure that credit and debit card details   
are secure from hackers.

(a) Describe how Hampton Cinema can ensure that data transmission between   
a user and their website is secure. [2 marks]

A user logging on to the Hampton Cinema website must be registered before they can book online. **Two-factor authentication** will be used whenever they log on to the website to book seats.

(b) Explain how **two** factor authentication works. [4 marks]

**1:**

**2:**

Hari is partially sighted. He can find out from the cinema’s website which films have an additional sound track with audio descriptions that he can listen to through headphones.

(c) Explain **two** accessibility features which can be used on the website to help   
Hari find which films have audio descriptions. [4 marks]

**1:**

**2:**

**[Total for Task 2 = 10 marks]**

Task 3

The Northern Daily News is a local newspaper which publishes printed and digital versions of a newspaper.

Alison is a features writer who writes a twice-weekly feature for the newspaper.

(a) Explain **two** ways in which Alison may make use of modern technologies to   
gather ideas and information for her stories. [4 marks]

**1:**

**2:**

Alison sometimes works from home. Her features are saved to the newspaper’s cloud storage facility. At the office, the features editor meets with the writers, designers and the picture editor to discuss what will go in the following day’s paper. Alison and the other writers can then make any last-minute changes needed.

(b) Explain **two** ways in which the use of cloud storage facilitates team working. [4 marks]

**1:**

**2:**

(c) Discuss the advantages and disadvantages for Alison of being able to work   
from home for part of the week. [6 marks]

**[Total for Task 3 = 14 marks]**

Task 4:

Lisa is the IT Manager for a chain of supermarkets.

The computer staff in the department are constantly working on improving their systems in order to give customers the best possible service and to monitor the company’s finances.

They use different forms of notation such as flowcharts, different types of chart or graph and tables to explain how new systems will work and to convey management information in an easily understandable form.

(a) For each of the following, state which form of notation Lisa could use to represent the information.

(i) Income and expenditure for each month of the year so that trends can   
easily be viewed. [1 mark]

(ii) The logical sequence of instructions that a computer program   
is undertaking. [1 mark]

(iii) Shows exact sales figures for different categories of product so that   
they can be compared against targets. [1 mark]

Anne has a store loyalty card. The items she purchases, and the loyalty card, are scanned at the checkout each time she goes to the supermarket.

(b) Explain **two** benefits to the organisation of issuing loyalty cards to customers. [4 marks]

**1:**

**2:**

Customers can order their groceries online on the supermarket’s website.

The supermarket uses cookies on its website, which users may choose to allow, or not.

(c) Explain what a cookie is. [2 marks]

Many customers who regularly order online allow cookies.

(d) Explain **one** benefit and **one** drawback to customers of allowing cookies.

**Benefit:**

**Drawback:**

[4 marks]

Lisa is concerned by the possibility of a cyber attack on either the supermarkets IT systems or website. They have identified three threats to their data and systems that they are particularly vulnerable to.

* Threat 1: Denial of Service attacks
* Threat 2: Ransomware
* Threat 3: Phishing emails and phone calls

(e) Evaluate the impact of each of these threats to the supermaket chains and   
which threat could potentially be most damaging to the company. [9 marks]

**Threat 1:**

**Threat 2:**

**Threat 3:**

**Conclusion:**

**[Total for Task 4 = 22 marks]**

**[Total for assessment = 60 marks]**