



Level 3 Cambridge Technical in IT

05838/05839/05840/05841/05842/05877 Unit 1: Fundamentals of IT

Time allowed: 1 hour 30 minutes

C380/2506

No extra materials are needed.



Please write clearly in black ink. **Do not write in the barcodes.**

Centre number

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Candidate number

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First name(s)

Last name

Date of birth

D	D	M	M	Y	Y	Y	Y
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INSTRUCTIONS

- Use black ink.
- Write your answer to each question in the space provided. If you need extra space use the lined page at the end of this booklet. The question numbers must be clearly shown.
- Answer **all** the questions.

INFORMATION

- The total mark for this paper is **80**.
- The marks for each question are shown in brackets [].
- Quality of extended response will be assessed in questions marked with an asterisk (*).
- This document has **16** pages.

ADVICE

- Read each question carefully before you start your answer.

Section A

Put a tick (✓) in the box next to the **one** correct answer for each question.

1 Which of the following is an output device?

- A** Mouse
- B** Printer
- C** Processor
- D** USB Port

☐
☐
☐
☐

[1]

2 Which type of computer system is used for large-scale data processing?

- A** Desktop
- B** Embedded
- C** Hybrid
- D** Mainframe

☐
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☐
☐

[1]

3 The number 15 is an example of which number system?

- A** Binary
- B** Decimal
- C** Hexadecimal
- D** Tetradeccimal

☐
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☐
☐

[1]

4 Which of the following wireless connectivity methods requires line of sight?

A Bluetooth

☐

B GSM

☐

C Laser

☐

D WiFi

☐

[1]

5 Which development tool only detects and corrects errors?

A Compiler

☐

B Debugger

☐

C IDE

☐

D Translator

☐

[1]

6 Which of the following is a **limitation** of a multiprocessor operating system?

A Failure of one processor will not affect overall functionality

☐

B Increased costs as each processor requires separate resources

☐

C Large main memory required

☐

D More work can be done in less time

☐

[1]

7 Complete the following sentence.

The purpose of the Simple Network Management Process (SNMP) is to

_____.

- A Define how to establish network communications
- B Manage and monitor network devices
- C Report errors to devices
- D Transmit files between computers on a network

☐
☐
☐
☐

[1]

8 Which of the following servers is used to store software?

- A Application
- B Database
- C File
- D Web

☐
☐
☐
☐

[1]

9 Which of the following is **not** a benefit of hybrid virtualisation?

- A Improves reliability of virtual machines
- B Increased efficiency when scaling to meet requirements
- C Increased flexibility of where data is stored
- D Simplifies backup processes

☐
☐
☐
☐

[1]

10 Complete the following sentence.

The use of social media at work can cause issues for a member of staff because it can cause them to _____ .

A Be well motivated

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B Complete work on time

☐

C Lose concentration

☐

D Problem solve easily

☐

[1]

11 Which statement best describes the use of email in business?

A Formal written electronic communication that can be sent to more than one person at the same time

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B Informal written electronic communication posted for several people to read

☐

C Personalised formal written communication sent to an individual

☐

D Vocal communication between two people

☐

[1]

12 Which physical security method can prevent unauthorised users viewing data and reduce glare?

A Anti-spyware

☐

B Biometrics

☐

C Privacy screen

☐

D Radio frequency identification

☐

[1]

13 Which business system is used to gather information to decide who is best able to aid a caller?

A Client server

☐

B Help desk

☐

C Management information system

☐

D Standard operating system

☐

[1]

14 Complete the following sentence.

The systematic approach to restructuring an organisation's goals, processes and technologies is called _____.

A Change management

☐

B Code of conduct

☐

C Disaster planning

☐

D Scale of change

☐

[1]

15 Which digital security method is used to provide individuals with access rights to files?

A Biometrics

☐

B Firewalls

☐

C Permissions

☐

D Tokens

☐

[1]

Section B

Riley works from home for a new IT development company. Riley is helping to develop a new Internet of Things (IoT) device that can be used with old fridges. The device will let users monitor what food is past the use by date in the fridge. The device will link to an application (app) on users' smart phones.

16 Riley needs to upgrade the PC that they will use to work from home.

(a) Describe the purpose of a motherboard.

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..... **[2]**

(b) Identify **two** ports that Riley would need on the upgraded PC.

1

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2

..... **[2]**

Riley decides that the upgraded PC will include both an SSD and an HDD.

(c) Explain **two** differences between an SSD and an HDD.

1

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2

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[4]

(d) Identify **one** method that Riley can use to dispose of the PC's old storage components.

Explain how this method will comply with data protection legislation.

Method

Explanation

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[3]

17 Riley's home is connected to the internet using copper cable.

(a) Describe **two** characteristics of copper cable that make it suitable for connecting homes to the internet.

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[4]

Riley is considering having fibre cable installed to their home.

(b) Explain **two** characteristics of fibre cable that would persuade Riley to have it installed.

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[4]

Internet data transmission is measured using the metric system based on megabits.

(c) Explain **one** difference between the metric and binary number systems.

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[2]

18 The app will be developed using freeware software.

(a) Describe **one** characteristic of freeware software.

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..... [2]

During development of the app, faults were found in the software.

(b) Describe **one** common fault found when software is being developed.

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..... [2]

(c) Identify **two** documents that could be used when diagnosing software faults.

1

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2

..... [2]

19 During the development of the app, two security threats were identified.

(a) Explain what **interception** is.

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..... [2]

(b) Explain what **eavesdropping** is.

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..... [2]

(c) Explain how a **firewall** can protect stored data.

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..... [2]

The IT development company has decided that they will promote the new device and app using social media.

20* Discuss the advantages and disadvantages of using social media for promoting the new device and app.

[10]

21 Riley has several industry qualifications.

(a) Explain **one** advantage to **Riley** of having industry qualifications.

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..... **[2]**

(b) Explain **one** advantage to the **IT development company** of Riley having industry qualifications.

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..... **[2]**

22 The IT development company is updating its working processes.

(a)* Explain why the company will require staff to use Standard Operating Procedures (SOP) when working for the company from home.

..... [10]

- (b) Explain **two** ways in which word processing skills could be used when creating a new whistleblowing policy.

1

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2

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[4]

- (c) Explain **two** methods that could be used to improve the security of the IT development company's information.

1

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2

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[4]**END OF QUESTION PAPER**

[illegible]

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