



Oxford Cambridge and RSA

# Monday 10 January 2022 – Morning

## Level 3 Cambridge Technical in IT

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

Time allowed: 1 hour 30 minutes  
C380/2201



**You must have:**

- a calculator



Please write clearly in black ink.

Centre number

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Candidate number

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First name(s)

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Last name

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Date of birth

D	D	M	M	Y	Y	Y	Y
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### INSTRUCTIONS

- Use black ink. You can use an HB pencil, but only for graphs and diagrams.
- Write your answer to each question in the space provided. If you need extra space use the lined pages 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.

#### FOR EXAMINER USE ONLY

Question No	Mark
Section A: 1-15	/15
Section B: 16	/7
17	/5
18	/10
19	/13
20	/9
21	/19
22	/2
<b>Total</b>	<b>/80</b>

**SECTION A**

Answer **all** the questions.

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

**1** Which of the following is a characteristic of an embedded computer system?

**A** Able to carry out a wide range of tasks

**B** Can be upgraded by a user

**C** Contains a complex user interface

**D** Low power consumption

**[1]**

**2** Which hardware is needed to connect a tablet computer to the internet?

**A** NIC

**B** Router

**C** Server

**D** Wireless Access Point (WAP)

**[1]**

**3** Which of the following is a development tool?

**A** CAD/CAM

**B** Compiler

**C** Project Management

**D** Spreadsheet

**[1]**

4 Which of the following is a benefit of off-the-shelf software?

A Available immediately

B Free

C Has lots of extra features

D Requires an annual fee

[1]

5 Which communication method allows real-time internet chat conversations?

A Email

B Instant messaging

C Short Messaging Service

D Voice over Internet Protocol

[1]

6 FTP stands for:

A Fast Transfer Protocol

B File Transfer Protocol

C File Translation Protocol

D Final Transistor Position

[1]

7 Which of the following is **not** a form of virtualisation?

A Client

B Cloud

C Hypervisor

D Storage

[1]

8 Which connectivity method would be the most suitable to create a secure link between two banks?

A ADSL

B Ethernet

C ISDN

D Leased Line

[1]

9 Which communication method would be most affected by a noisy environment?

A Email

B Group discussion

C Letter

D Social networking

[1]

10 Identify the personal attribute required to be a network manager.

A Body language

B Can do attitude

C Eye contact

D Planning and organisation skills

[1]

11 Which of the following demonstrates that an employee is ready to work?

A Bias

B Personal grooming

C Problem-solving skills

D Respect

[1]

12 Which of the following is **not** a purpose of a professional body?

A Gain industry certification

B Organise industrial action

C Provide forums for discussion

D Regulation of standard operating procedures

[1]

13 Which operational issue would be implemented if a flood affected a business's computer systems?

A Acceptable use policy

B Change management

C Disaster planning and recovery

D Health and Safety

[1]

14 Which of the following is **not** a feature of providing remote access for a business's employees?

A Allows high level of security

B Easily scalable

C Only accessible through one type of device

D User friendly

[1]

15 Which digital security method can be linked to user groups when protecting a computer system?

A Anti-spyware

B Biometrics

C Encryption

D Username and password

[1]

**Section A Total:**  
**(for examiner use only)**

**SECTION B**

Answer **all** the questions.

Strange Karga Arts (SKA) is a large computer games development company, specialising in games for mobile platforms. The SKA main office is based in one building in Dundee. The mainframe computer is located on the second floor of this building.

The team members in the main office are responsible for monitoring the development of any new games as well as rendering and publishing the final games.

Developers, who create the games, are based all over the United Kingdom and work from home. The developers are monitored by the team members based in Dundee to ensure that the games are being developed to schedule.

**16** The developers work from home creating the digital artwork for the games.

**(a)** Identify and describe **two** input devices that the developers would use to create the digital artwork for the game.

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2 .....

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**[4]**

**(b)** Identify and explain **one** limitation that would need to be considered by the developers when purchasing a desktop computer to use to create the digital artwork.

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**[3]**

**17** Strange Karga Arts (SKA) provide each of the developers with a hybrid device to connect to the internet and communicate with the Dundee office.

**(a)** Explain what is meant by a hybrid device.

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..... [3]

**(b)** Explain **one** disadvantage to the developer of using the hybrid device.

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..... [2]

**18\*** The SKA team members based in Dundee monitor the work of the developers. The developers are based all over the United Kingdom.

Discuss the advantages and disadvantages of using video conferencing by the SKA team members to monitor and interact with the developers.

[10]

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**19** The main office in Dundee has a LAN network.

**(a)** Identify and explain **two** advantages to SKA of using a LAN network in its main office.

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**[6]**

**(b)** The LAN uses a client server topology.

Describe **one** characteristic of a client server topology.

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..... [2]

**(c)** When the developers have created the digital artwork for the games, the digital artwork files are stored on a database server.

Explain why a database server is suitable for this task.

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..... [3]

**(d)** The files containing games players' scores can be measured in nibbles.

Explain what is meant by a nibble.

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..... [2]

**20** Strange Karga Arts (SKA) use a Management Information System (MIS) to track the development of the games.

Identify and describe **two** advantages and **one** disadvantage of using an MIS. Use examples related to SKA to support your answers.

Advantage 1 .....

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Advantage 2 .....

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Disadvantage .....

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**[9]**





**ADDITIONAL ANSWER SPACE**

If additional answer space is required, you should use the following lined pages. The question numbers must be clearly shown in the margins – for example, 16(a) or 17(b).

A large vertical rectangular area containing 25 horizontal dotted lines for writing answers.

A vertical solid line is positioned on the left side of the page. To its right, there are 25 horizontal dotted lines spaced evenly down the page, providing a guide for handwriting practice.



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