

Modified Enlarged 18pt
OXFORD CAMBRIDGE AND RSA EXAMINATIONS
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 plus your additional time allowance

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) _____

Last name _____

**Date of
birth**

D	D	M	M	Y	Y	Y	Y
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READ INSTRUCTIONS OVERLEAF

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 (*).

ADVICE

Read each question carefully before you start your answer.

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? [1]

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

☐

2 Which hardware is needed to connect a tablet computer to the internet? [1]

A NIC

☐

B Router

☐

C Server

☐

D Wireless Access Point (WAP)

☐

3 Which of the following is a development tool? [1]

A CAD/CAM

☐

B Compiler

☐

C Project Management

☐

D Spreadsheet

☐

4 Which of the following is a benefit of off-the-shelf software? [1]

A Available immediately

☐

B Free

☐

C Has lots of extra features

☐

D Requires an annual fee

☐

5 Which communication method allows real-time internet chat conversations? [1]

A Email

☐

B Instant messaging

☐

C Short Messaging Service

☐

D Voice over Internet Protocol

☐

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? [1]

- A Client**
- B Cloud**
- C Hypervisor**
- D Storage**

☐☐☐☐

8 Which connectivity method would be the most suitable to create a secure link between two banks? [1]

- A ADSL**
- B Ethernet**
- C ISDN**
- D Leased Line**

☐☐☐☐

9 Which communication method would be most affected by a noisy environment? [1]

A Email

☐

B Group discussion

☐

C Letter

☐

D Social networking

☐

10 Identify the personal attribute required to be a network manager. [1]

A Body language

☐

B Can do attitude

☐

C Eye contact

☐

D Planning and organisation skills

☐

11 Which of the following demonstrates that an employee is ready to work? [1]

A Bias

☐

B Personal grooming

☐

C Problem-solving skills

☐

D Respect

☐

12 Which of the following is NOT a purpose of a professional body? [1]

A Gain industry certification

☐

B Organise industrial action

☐

C Provide forums for discussion

☐

D Regulation of standard operating procedures

☐

13 Which operational issue would be implemented if a flood affected a business's computer systems? [1]

A Acceptable use policy

☐

B Change management

☐

C Disaster planning and recovery

☐

D Health and Safety

☐

14 Which of the following is NOT a feature of providing remote access for a business's employees? [1]

A Allows high level of security

☐

B Easily scalable

☐

C Only accessible through one type of device

☐

D User friendly

☐

15 Which digital security method can be linked to user groups when protecting a computer system? [1]

A Anti-spyware

☐

B Biometrics

☐

C Encryption

☐

D Username and password

☐

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.

1

2

[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.

[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.

[3]

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

[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]

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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.

1

2

[6]

(b) The LAN uses a client server topology.

Describe ONE characteristic of a client server topology.

[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.

[3]

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

Explain what is meant by a nibble.

[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. [9]

Advantage 1 _____

Advantage 2 _____

Disadvantage _____

21 SKA have advertised for a new animator to develop a game.

(a) Identify and describe THREE personal attributes that SKA should look for in a new animator.

1

2

3

(b)*An animator has told SKA that another computer games development company has offered them a new job for higher pay.

Explain the ethical issues that the offer from the computer games development company has caused for SKA and how these could be addressed. [10]

[illegible]

22 Identify TWO physical protection methods that SKA could implement in the Dundee office to protect their new computer games.

1

2

[2]

END OF QUESTION PAPER

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).

[illegible]



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