OCR
Oxford Cambridge and RSA

Monday 13 May 2019 – Morning

LEVEL 3 CAMBRIDGE TECHNICAL IN IT

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

Time allowed: 1 hour 30 minutes
C380/1906

C380-1906

You must have:
- a calculator

Please write clearly in black ink.

Centre number | | | | | | Candidate number | | | | |

First name(s) _____

Last name _____

Date of Birth | D | D | M | M | Y | Y | Y | Y |

INSTRUCTIONS
- Use black ink. You may use an HB pencil for graphs and diagrams.
- Answer **all** the questions.
- Write your answer to each question in the space provided.
- If additional answer space is required, you should use the lined page(s) at the end of this booklet. The question number(s) must be clearly shown.

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 consists of **20** pages.

FOR EXAMINER USE ONLY	
Question No	**Mark**
Section A: 1-15	/15
Section B: 16	/21
17	/10
18	/10
19	/20
20	/4
Total	**/80**

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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 limitation of desktop computers?

(a) Desktop computers do not require a battery. ☐

(b) Desktop computers have large screens compared to other similar devices. ☐

(c) Desktop computers have smaller physical storage than other similar devices. ☐

(d) Desktop computers take up a larger physical space than similar devices. ☐

[1]

2 James has to send a photograph from his mobile phone to his brother's mobile phone.

Which of the following best justifies the use of Bluetooth® technology for this purpose?

(a) An ad hoc network can be established between the two devices. ☐

(b) Bluetooth® connections cannot be hacked. ☐

(c) Bluetooth® connections work over a long range. ☐

(d) The data transferred will be checked for viruses automatically. ☐

[1]

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3 Which of the following is a reason why a publishing house may decide not to share the source code for the software it publishes?

(a) To allow users to use the software on multiple devices. ☐

(b) To allow users to use the software on multiple platforms. ☐

(c) To improve the quality of future software upgrades. ☐

(d) To make the software more difficult to copy. ☐

[1]

4 RK Manufacturing uses CAD/CAM software as part of its manufacturing process.

Which of the following is a reason why RK Manufacturing uses CAD/CAM software?

(a) CAM software includes templates that can help the design process. ☐

(b) The completed products are more accurate than those produced by human control. ☐

(c) The costs of manufacturing are shared amongst many different organisations. ☐

(d) The range of physical tools available for the machines is wider. ☐

[1]

5 Which of the following is a feature of an off-the-shelf operating system?

(a) Advanced users may see the source code. ☐

(b) It is made to the user requirements. ☐

(c) It automatically provides regular security updates. ☐

(d) Non-essential functionality is removed. ☐

[1]

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6 ATAT Printing has travelling engineers who carry out support visits at customer sites.

Which of the following communication methods is best suited for use by an engineer wanting to communicate privately with the main office, in real time?

(a) Email ☐

(b) Instant Messaging ☐

(c) Social media ☐

(d) Written letter ☐

[1]

7 Which of the following is a purpose of Simple Network Management Protocol (SNMP)?

(a) To collect information from network devices ☐

(b) To manage data packet transfer across a network ☐

(c) To manage the transfer of data across the World Wide Web ☐

(d) To provide checksums for data integrity ☐

[1]

8 ATAT Printing uses software so that staff can access a simulation of their office desktop whilst working away from the office.

This is an example of which of the following?

(a) Client virtualisation ☐

(b) End user certification ☐

(c) Peer-to-peer networking ☐

(d) Teleconferencing ☐

[1]

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9 What is the purpose of an IP address?

(a) To allow host identification ☐

(b) To identify the operating system on the computer ☐

(c) To restrict the number of clients who can connect to the host server ☐

(d) To split the network into subnetworks ☐

[1]

10 Colin has to gather data on the IT Support team's performance over the past year and pass this information to his manager.

Which would be the most appropriate method of communication?

(a) Letter ☐

(b) Report ☐

(c) Social media ☐

(d) Telephone ☐

[1]

11 Maisie is setting up a meeting for a large group of people. During the meeting, she has to deliver a lot of information as quickly and as clearly as possible.

Which of the following is the most suitable type of software to use for this purpose?

(a) Email ☐

(b) Instant messaging ☐

(c) Presentation ☐

(d) Word processing ☐

[1]

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12 Rebecca has received a suspicious email from someone pretending to be from her bank.
What sort of threat is this?

(a) Data theft ☐

(b) Eavesdropping ☐

(c) Phishing ☐

(d) Trojan ☐

[1]

13 Which of the following is a physical security method?

(a) Antivirus ☐

(b) Encryption ☐

(c) Firewall ☐

(d) Security token ☐

[1]

14 Which of the following is **not** a feature of effective anti-virus software?

(a) Automated data backup ☐

(b) Malware detection ☐

(c) Parental controls ☐

(d) Social media protection ☐

[1]

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15 Which of the following is a suitable method of physical destruction?

(a) Defragmenting ☐

(b) Degaussing ☐

(c) Disk shredding ☐

(d) Overwriting ☐

[1]

Section A Total:
(for examiner use only) ☐

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SECTION B

Answer **all** the questions.

E5RQ Films has a number of small cinemas throughout the country. Each cinema has three Personal Computers (PCs) which are connected in a client server network.

16 E5RQ Films IT department is to upgrade the Personal Computers (PCs) in the cinemas with new components.

(a) Describe the purpose of the following components in a Personal Computer (PC):

Motherboard

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RAM

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Hard drive

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[6]

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(b) E5RQ Films will need to dispose of the old components.

Identify **two** pieces of legislation that need to be followed when disposing of the old components.

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[2]

(c) E5RQ Films uses the Personal Computers (PCs) to create information sheets for staff about new film releases.

Identify **two** output devices that could be used to produce the information sheets.

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[2]

(d) E5RQ Films could use bespoke software or open source software on all its Personal Computers (PCs).

Identify **one** feature of bespoke software.

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(e)* Discuss the benefits and risks of E5RQ Films using open source software.

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17 The E5RQ Films IT department is to produce a booklet for the cinema staff to highlight security issues relating to the use of the Personal Computers (PCs).

(a) Identify and describe **two** physical security methods E5RQ Films could use to prevent unauthorised access to the data stored on the cinema Personal Computers (PCs).

Method 1.....

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Method 2.....

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[4]

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(b) Identify and describe **three** security threats, other than unauthorised access, that could be included in the booklet.

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[6]

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18* E5RQ Films wants to employ a new Network Manager to lead a small team of Network Engineers to provide safe and secure data transfer between the cinemas.

Discuss the personal attributes that the Network Manager will need.

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[10]

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19 E5RQ Films uses a client server network to connect the three Personal Computers (PCs) in each individual cinema.

(a) Explain **two** advantages and **two** disadvantages of using a client server network.

Advantage 1

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Advantage 2

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Disadvantage 1

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Disadvantage 2

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[8]

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E5RQ Films is considering introducing a WAN network, to link all the cinemas together.

(b) Explain the purpose of a web server.

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(c) Explain the purpose of a hypervisor server.

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(d) The WAN network will provide the cinemas with access to an intranet, which will allow staff to order film merchandise items in different colour options.

Explain, using an example, how each colour can be stored as a hexadecimal value.

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.....**[4]**

20 Staff at one cinema may need to telephone another cinema to check merchandise availability for promotions. The telephone call could be made using either PSTN or cellular methods.

Compare the use of PSTN and cellular methods to make the telephone calls.

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END OF QUESTION PAPER

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ADDITIONAL ANSWER SPACE

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

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