

**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 plus your  
additional time allowance**

**C380/1906**

**You must have:  
a calculator**

**Modified Enlarged 24 pt**

**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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## **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 (\*).**

**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? [1]**

**(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.** ☐

**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? [1]**

- (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.** ☐

**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? [1]**

**(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.** ☐

**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? [1]**

- (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.** ☐

**5 Which of the following is a feature of an off-the-shelf operating system? [1]**

**(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.** ☐

**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? [1]**

**(a) Email**

☐

**(b) Instant Messaging**

☐

**(c) Social media**

☐

**(d) Written letter**

☐



**7 Which of the following is a purpose of Simple Network Management Protocol (SNMP)? [1]**

**(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** ☐

**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? [1]**

**(a) Client virtualisation**

☐

**(b) End user certification**

☐

**(c) Peer-to-peer networking**

☐

**(d) Teleconferencing**

☐

**9 What is the purpose of an IP address? [1]**

**(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**

☐

**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? [1]**

**(a) Letter**

☐

**(b) Report**

☐

**(c) Social media**

☐

**(d) Telephone**

☐

- 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? [1]**

**(a) Email**

☐

**(b) Instant messaging**

☐

**(c) Presentation**

☐

**(d) Word processing**

☐

**12 Rebecca has received a suspicious email from someone pretending to be from her bank.**

**What sort of threat is this? [1]**

**(a) Data theft**

☐

**(b) Eavesdropping**

☐

**(c) Phishing**

☐

**(d) Trojan**

☐

**13 Which of the following is a physical security method? [1]**

**(a) Antivirus**

☐

**(b) Encryption**

☐

**(c) Firewall**

☐

**(d) Security token**

☐

**14 Which of the following is NOT a feature of effective anti-virus software? [1]**

- (a) Automated data backup** ☐
- (b) Malware detection** ☐
- (c) Parental controls** ☐
- (d) Social media protection** ☐

**15 Which of the following is a suitable method of physical destruction? [1]**

- (a) Defragmenting** ☐
- (b) Degaussing** ☐
- (c) Disk shredding** ☐
- (d) Overwriting** ☐

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

## 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)**: [6]

**Motherboard**

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## RAM

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## Hard drive

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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.**

**1** \_\_\_\_\_

\_\_\_\_\_  
**2** \_\_\_\_\_

**[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.**

**1** \_\_\_\_\_

\_\_\_\_\_  
**2** \_\_\_\_\_

**[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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**[1]**

[illegible]

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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). [4]**

**Method 1** \_\_\_\_\_

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**Method 2**

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**(b) Identify and describe THREE security threats, other than unauthorised access, that could be included in the booklet. [6]**

**1**

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**2**

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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. [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. [8]**

**Advantage 1**

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**Advantage 2**

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**Disadvantage 1**

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**Disadvantage 2**

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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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**[4]**

**(c) Explain the purpose of a hypervisor server.**

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**[4]**

- (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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**[4]**

**END OF QUESTION PAPER**

## 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).**

[illegible]









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