

# Monday 9 January 2023 – Morning

# Level 3 Cambridge Technical in IT

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

Time allowed: 1 hour 30 minutes

C380/2301



/	`
No extra materials are need	ed.
<b>A</b>	



Please write clea	ase write clearly in black ink. <b>Do not write in the barcodes.</b>							
Centre number							Candidate number	
First name(s)								
Last name								
Date of birth	D D	M	M	Υ	Υ	Υ	Y	

### **INSTRUCTIONS**

- Use black ink.
- 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.

## **SECTION A**

# Answer **all** the questions.

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

1	Wh	nich of the storage devices is portable?	
	A	Cloud	
	В	Flash drive	
	С	Hard drive	
	D	SATA	
			[1]
2	Wh	nich memory is stored on the processor?	
	A	Cache	
	В	Flash	
	С	RAM	
	D	ROM	
			[1]
3	Wh	nich of the following converts digital signals to analogue signals?	
	A	Hub	
	В	Modem	
	С	Switch	
	D	Wireless Access Point	
			[1]

4	Wh	nich of the following is an example of a development tool?		
	A	CAD/CAM		
	В	Collaboration software		
	С	Email		
	D	Integrated design environment (IDE)		
				[1]
5	Wh	nich of the following is <b>not</b> a characteristic of VoIP?		
	A	Flexibility to add extra devices		
	В	Low initial set-up cost		
	С	Video and voice communication		
	D	Voice communication only		
				[1]
6		nich troubleshooting tool compares the condition of a computer systetem crash?	em before and after a	
	Α	Baseline		
	В	Event viewer		
	С	Network monitor		
	D	Virus checker		
				[1]

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7	Wł	nich of the servers manages multiple computers?		
	A	Application		
	В	Database		
	С	Hypervisor		
	D	Web		
				[1]
8	Wł	nich of the following defines the range of IP addresses used in a ne	twork?	
	A	Default gateway		
	В	IP address		
	С	MAC address		
	D	Subnet mask		
				[1]
9	Wł	nich of the following is the main purpose of a Metropolitan Area Net	work (MAN)?	
	Α	To connect a mobile phone to a laptop		
	В	To connect several LANs together		
	С	To connect several PCs together		
	D	To connect several WANs together		
				[1]

10	Wł	nich of the following is an example of an interpersonal skill?		
	A	Email		
	В	Eye contact		
	С	Language		
	D	Verbal discussion		
				[1]
11	Wh	nich of the following states what a member of staff can do on a busi	ness computer syster	m?
	A	Acceptable Use Policy		
	В	Code of Conduct		
	С	Health and Safety		
	D	Security of information		
				[1]
12	Со	mplete the sentence.		
	Ма	anipulating a person to disclose their login details is an example of _		•
	A	Data theft		
	В	Hacking		
	С	Social engineering		
	D	Virus		
				[1]

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13	Wh	nich of the following monitors port usage on a computer system?		
	A	Anti-spyware		
	В	Anti-virus		
	С	Firewall		
	D	Usernames		
				[1]
14	Со	mplete the sentence.		
	The	e ability to find solutions to simple issues is an example of	·	
	Α	Dependability		
	В	Determination		
	С	Problem solving		
	D	Self-motivation		
				[1]
15		nich is the <b>most</b> appropriate communication method to send a confirming process?	rmation code dui	ring a
	Α	Personal Assistant (PA)		
	В	Short message service (SMS)		
	С	Social media (SM)		
	D	Voice over Internet Protocol (VoIP)		
				[1]
			ction A Total:	
		(for exami	ner use only)	

### **SECTION B**

### Answer **all** the questions.

Progressive Disaster Recovery (PDR) is a charity who send specialist rescue teams around the world to help people after major natural disasters such as earthquakes, fires or tsunamis. The PDR office is in London and has a network of five computers. The specialists are based all over the United Kingdom.

**16** Each of the PDR specialists is provided with a smartphone and laptop computer to help them

with	their work.	
(a)	Identify and describe <b>three</b> features of a laptop computer that make it suitable for use by the PDR specialists.	
	1	
	2	
	3	
	[6	}]
(b)	Explain how the PDR specialists can use their smartphones to allow their laptops to communicate with the PDR London office.	
	[2	<u>']</u>

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	(c)	The London office network includes a switch.
		Explain how a <b>switch</b> allows data to move around the network efficiently.
		[3]
17	A ha	ardware fault has developed with one of the computers in the PDR London office.
17		ardware fault has developed with one of the computers in the PDR London office.  chnician follows a fault diagnosis plan to help them identify the hardware fault.
17	A te	
17	A te	chnician follows a fault diagnosis plan to help them identify the hardware fault.
17	A te	chnician follows a fault diagnosis plan to help them identify the hardware fault.  The steps in the <b>correct order</b> in the Hardware fault diagnosis plan below.
17	A te	chnician follows a fault diagnosis plan to help them identify the hardware fault.  Test theory
17	A terplace (a) (b) (c)	chnician follows a fault diagnosis plan to help them identify the hardware fault.  Tee the steps in the <b>correct order</b> in the Hardware fault diagnosis plan below.  Test theory  Document results of investigation
17	A terplace (a) (b) (c)	chnician follows a fault diagnosis plan to help them identify the hardware fault.  The steps in the correct order in the Hardware fault diagnosis plan below.  Test theory  Document results of investigation  Create an action plan

Hardware fault diagnosis plan			
1	Identify the problem		
2			
3			
4			
5			
6			
7	End		

18*	The laptop computers have an off-the-shelf operating system installed.					
	Discuss the benefits and limitations of <b>off-the-shelf</b> operating systems.					
	[10]					

19		en the rescue specialists are sent to a disaster zone, they need to keep in contact with the R London office.
	(a)	Word processing is one type of communication technology.
		Identify and explain <b>two</b> other types of communication technologies that the PDR specialists could use when they are in a disaster zone.
		1
		2
		[6]
	(b)	An Internet Protocol (IP) is used to send data between the laptops and computers in the PDR office.
		Explain the process used by IP to send the data.
		[3]

	(c)	Explain <b>one</b> difference between how SMTP and POP deal with an email message.					
		[2]					
20*	PDR are considering virtualising their office network.  Discuss the benefits and limitations of using <b>cloud virtualisation</b> .						

21	PDR use business systems in the London office.				
	Explain the purpose of each of the following business systems.				
	Mar	Management Information System (MIS)			
	Star	ndard Operating Procedure (SOP)			
	Help	odesk			
			[6]		
22	PDR deal with operational issues including security of information, on a daily basis.				
	(a)	Explain why the security of information is an <b>operational issue</b> for PDR.			
			[2]		

Physical security measures can be used to address the issue of security of information
Identify <b>one</b> other way that PDR could address the issue of security of information.
Identify and describe <b>two</b> physical security methods that could be used to secure the laptops provided to the PDR specialists.
1
2
Identify <b>one</b> piece of legislation that PDR must comply with when disposing of old equipment and describe how they can comply with the legislation.

## **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(b) or 19(b).



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