

**Modified Enlarged 18pt**

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS**

**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 plus your additional time allowance**

**No exam materials are needed.**

**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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**READ INSTRUCTIONS OVERLEAF**

## **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 (\*).**

## **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 storage devices is portable? [1]**

**A Cloud**

☐

**B Flash drive**

☐

**C Hard drive**

☐

**D SATA**

☐

**2 Which memory is stored on the processor? [1]**

**A Cache**

☐

**B Flash**

☐

**C RAM**

☐

**D ROM**

☐

**3 Which of the following converts digital signals to analogue signals? [1]**

**A Hub**

☐

**B Modem**

☐

**C Switch**

☐

**D Wireless Access Point**

☐

**4 Which of the following is an example of a development tool? [1]**

**A CAD/CAM**

☐

**B Collaboration software**

☐

**C Email**

☐

**D Integrated design environment (IDE)**

☐

**5 Which of the following is NOT a characteristic of VoIP? [1]**

**A Flexibility to add extra devices**

☐

**B Low initial set-up cost**

☐

**C Video and voice communication**

☐

**D Voice communication only**

☐

**6 Which troubleshooting tool compares the condition of a computer system before and after a system crash? [1]**

**A Baseline**

☐

**B Event viewer**

☐

**C Network monitor**

☐

**D Virus checker**

☐

**7 Which of the servers manages multiple computers? [1]**

**A Application**

☐

**B Database**

☐

**C Hypervisor**

☐

**D Web**

☐

**8 Which of the following defines the range of IP addresses used in a network? [1]**

**A Default gateway**

☐

**B IP address**

☐

**C MAC address**

☐

**D Subnet mask**

☐

**9 Which of the following is the main purpose of a Metropolitan Area Network (MAN)? [1]**

**A To connect a mobile phone to a laptop**

☐

**B To connect several LANs together**

☐

**C To connect several PCs together**

☐

**D To connect several WANs together**

☐

**10 Which of the following is an example of an interpersonal skill? [1]**

**A Email**

☐

**B Eye contact**

☐

**C Language**

☐

**D Verbal discussion**

☐

**11 Which of the following states what a member of staff can do on a business computer system? [1]**

**A Acceptable Use Policy**

☐

**B Code of Conduct**

☐

**C Health and Safety**

☐

**D Security of information**

☐

**12 Complete the sentence.**

**Manipulating a person to disclose their login details is an example of \_\_\_\_\_ . [1]**

**A Data theft**

☐

**B Hacking**

☐

**C Social engineering**

☐

**D Virus**

☐

**13 Which of the following monitors port usage on a computer system? [1]**

**A Anti-spyware**

☐

**B Anti-virus**

☐

**C Firewall**

☐

**D Usernames**

☐

**14 Complete the sentence.**

The ability to find solutions to simple issues is an example of \_\_\_\_\_. [1]

**A Dependability**

☐

**B Determination**

☐

**C Problem solving**

☐

**D Self-motivation**

☐

**15 Which is the MOST appropriate communication method to send a confirmation code during a login process? [1]**

**A Personal Assistant (PA)**

☐

**B Short message service (SMS)**

☐

**C Social media (SM)**

☐

**D Voice over Internet Protocol (VoIP)**

☐



**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 THREE 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.**

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**[2]**

- (c) The London office network includes a switch.  
Explain how a SWITCH allows data to move around the network efficiently.**

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**[3]**

**17 A hardware fault has developed with one of the computers in the PDR London office.**

**A technician follows a fault diagnosis plan to help them identify the hardware fault.**

**Place the steps in the CORRECT ORDER in the Hardware fault diagnosis plan below. [5]**

- (a) Test theory**
- (b) Document results of investigation**
- (c) Create an action plan**
- (d) Verify problem**
- (e) Define theory of possible cause.**

<b>Hardware fault diagnosis plan</b>	
<b>1</b>	<b>Identify the problem</b>
<b>2</b>	
<b>3</b>	
<b>4</b>	
<b>5</b>	
<b>6</b>	
<b>7</b>	<b>End</b>

**18\* The laptop computers have an off-the-shelf operating system installed.**

**Discuss the benefits and limitations of OFF-THE-SHELF operating systems.**

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**19 When the rescue specialists are sent to a disaster zone, they need to keep in contact with the PDR London office.**

**(a) Word processing is one type of communication technology.**

**Identify and explain TWO other types of communication technologies that the PDR specialists could use when they are in a disaster zone.**

**1**

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**2**

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- (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.**

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**[3]**

- (c) Explain ONE difference between how SMTP and POP deal with an email message.**

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**[2]**

**20\* PDR are considering virtualising their office network.**

## Discuss the benefits and limitations of using CLOUD VIRTUALISATION.

This image shows a blank 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.

**21 PDR use business systems in the London office.**

**Explain the purpose of each of the following business systems.**

**Management Information System (MIS)**

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**Standard Operating Procedure (SOP)**

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**Helpdesk**

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**22 PDR deal with operational issues including security of information, on a daily basis.**

**(a) Explain why the security of information is an OPERATIONAL ISSUE for PDR.**

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**[2]**

**(b) Physical security measures can be used to address the issue of security of information.**

**Identify ONE other way that PDR could address the issue of security of information.**

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**[1]**

**(c) Identify and describe TWO physical security methods that could be used to secure the laptops provided to the PDR specialists.**

**1**

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**2**

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**[6]**

- (d) Identify ONE piece of legislation that PDR must comply with when disposing of old equipment and describe how they can comply with the legislation.

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[3]

**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).**

[illegible]









Oxford Cambridge and RSA

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**Version 2**