OCR
Oxford Cambridge and RSA

Level 3 Cambridge Technical in IT
05838/05839/05840/05841/05842/05877

Unit 1: Fundamentals of IT
Monday 15 May 2017 – Morning

Time allowed: 1 hour 30 minutes

You must have:
• a calculator

First Name		Last Name	

Centre Number						Candidate Number				

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.
• Complete the boxes above with your name, centre number, candidate number and date of birth.
• 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	/10
17	/7
18	/6
19	/10
20	/6
21	/10
22	/10
23	/6
Total	**/80**

SECTION A

Answer **all** the questions.

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

1   BV Digital Comms. has developed its own VoIP software package. A cut-down version of the software is available as Freeware.

Why would BV Digital Comms. choose to distribute the cut-down version of its VoIP software as Freeware?

(a)   To avoid copyright issues.

(b)   To discourage sales of the full programme.

(c)   To encourage software engineers to further develop their programme.

(d)   To encourage users to purchase the full version.

[1]

2   A sales team has been asked to analyse the sales figures for one section of a business. The team can use database or spreadsheet software for this purpose.

Which of the following describes why the team may choose to use database software rather than spreadsheet software to analyse the data?

(a)   Spreadsheet software cannot store atomised data in related tables.

(b)   Spreadsheet software cannot create graphs from data.

(c)   Spreadsheet software cannot sort data alphabetically.

(d)   Spreadsheet software cannot sort data into number order.

[1]

3 Which of the following **best** describes the purpose of utility software?

(a) To allow multiple users to use a computer. ☐

(b) To allow the user to maintain a computer. ☐

(c) To allow the user to manage contacts. ☐

(d) To allow the user to manage electricity and plumbing bills. ☐

[1]

4 Businesses can use Short Message Service (SMS) for a range of different purposes.

Which of the following would **not** be an appropriate use of SMS by a business?

(a) To confirm a booking. ☐

(b) To distribute a new social media policy amongst staff. ☐

(c) To inform clients of a forthcoming invite-only sales event. ☐

(d) To remind a client of an appointment. ☐

[1]

5 Which of the following is a protocol used by a web server to deliver a webpage?

(a) Hypertext Mark-up Language (HTML) ☐

(b) Hypertext Transfer Protocol (HTTP) ☐

(c) Simple Mail Transfer Protocol (SMTP) ☐

(d) Internet Control Message Protocol (ICMP) ☐

[1]

6 Which of the following groups has control of the content of a website hosted on a virtual server?

(a) Members of the public

(b) The Data Commissioner

(c) Server manufacturing staff

(d) The owner of the website

[1]

7 Which network topology is shown in this diagram?
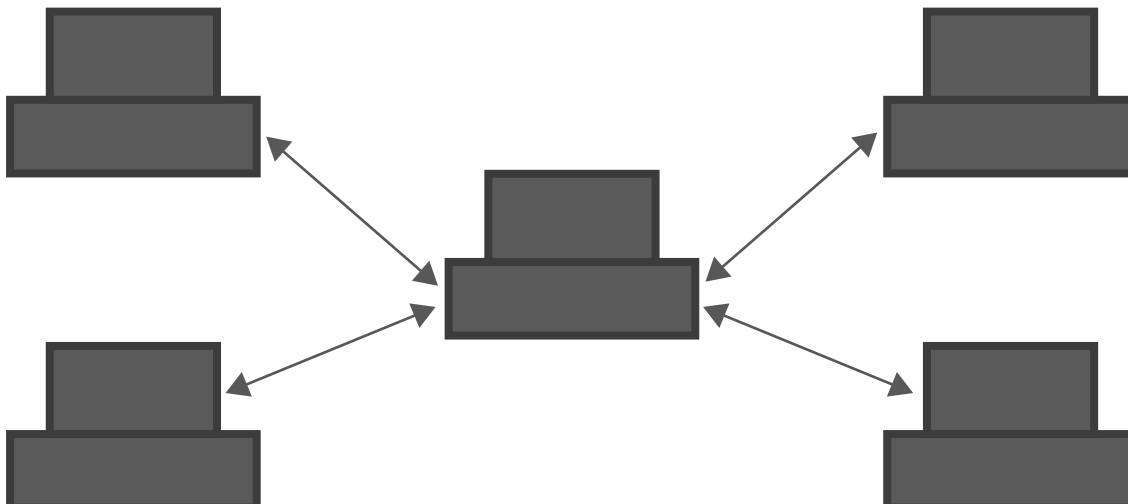
(a) Bus

(b) Client server

(c) Peer to peer

(d) Ring

[1]

8 Harrow and Midshire Bank is a small bank with five branches in the UK.

Which of the following **best** describes why Harrow and Midshire bank has decided to create a WAN?

(a) To allow secure communication between different branches. ☐

(b) To host their own bank website. ☐

(c) To improve the speed at which SMS messages may be sent between branches. ☐

(d) To raise revenue by charging other users for access to their leased lines. ☐

[1]

9 Which of the following telephone networks is **least** likely to be connected to the Public Switched Telephone Network (PSTN)?

(a) A mobile phone network. ☐

(b) A nationwide telephone network. ☐

(c) A secure telephone network in a military base. ☐

(d) A telephone network allowing communication within a single building and beyond. ☐

[1]

10 Which of the following would **not** be a suitable activity to complete on a satellite network?

(a) To live broadcast from a natural disaster area. ☐

(b) To play a real-time strategy game. ☐

(c) To send an email from a remote location. ☐

(d) To view a website from within a school building. ☐

[1]

Turn over

11 Which of the following may be an indication of an ineffective Customer Relationship Management (CRM) process within an organisation?

(a) Increased customer base.

(b) Increased customer loyalty.

(c) Increased customer complaints.

(d) Increased sales.

[1]

12 Which of the following reasons **best** explains why a closed questioning technique may be more effective than an open questioning technique?

(a) Allows the respondent to give expanded answers.

(b) Answers are more reliable.

(c) Answers are more concise that can be easily analysed.

(d) The respondent will feel more engaged in the process.

[1]

13 Which of the following features is **not** commonly available in presentation software?

(a) Data sorting

(b) Graphics

(c) User interaction

(d) Video

[1]

14 Which of the following would be the **most** appropriate dress code to wear to an interview for a sales management role?

    (a) Canvas trousers with polo shirt in company colours.

    (b) A business suit.

    (c) Smart-casual wear.

    (d) Jeans with t-shirt.

[1]

15 Individuals who work within the IT industry may study for qualifications as part of their training.

Which of the following is **not** an advantage to the employee of completing this training?

    (a) Certification is available to anyone.

    (b) Improved job opportunities.

    (c) There is overlap in the qualifications that make up different qualifications.

    (d) Trainees can focus on those areas that interest them.

[1]

Turn over

SECTION B

Answer **all** the questions.

RGIS is a virtualisation specialist company. The company provides IT services to small and medium sized businesses in the UK. The majority of the IT services are delivered from a data centre in Birmingham. The data centre has many racks of servers running a variety of services including virtualisation, file and print, backup and database. Customers of RGIS must purchase a WAN link to the data centre to allow them to access services.

RGIS runs a central help desk to provide support for customers. This can be accessed via a web-site, email or over the telephone.

16 RGIS has many racks of servers in its data centre.

(a) The servers contain different types of memory.

Explain the purpose of the following types of memory:

RAM ....

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ROM ....

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Cache ....

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[6]

(b) Servers in the RGIS data centre are connected using a wired Ethernet LAN.

Describe **two** characteristics of a wired Ethernet LAN that make it suitable for this purpose.

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[4]

17 Customers connect to the data centre using a router rather than a hybrid device.

Justify the use of a router to connect to the RGIS data centre.

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....**[7]**

18 RGIS uses an off the shelf operating system for all of its servers.

Explain **two** advantages and **one** disadvantage of using an off the shelf operating system.

Advantage 1 ....

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Advantage 2 ....

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Disadvantage ....

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[6]

19* RGIS is an ethical employer. It publishes documents that explain to employees about ethical issues important to the running of the company.

Discuss the ethical issues that RGIS should include in its documents.

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Turn over

20 One service that RGIS offers is a virtual client.

   (a) Describe what is meant by the term virtual client.

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   (b) Explain **two** limitations of using virtual clients.

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21* RGIS uses helpdesk software to support its customers.

Explain the benefits and limitations to RGIS of using helpdesk software.

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Turn over

22 RGIS would like to employ a new IT Technician.

(a) One personal attribute that the new IT Technician should have is good numerical skills.

Identify **two other** personal attributes that the new IT Technician should have. For each, explain why the attribute is important.

Attribute 1 ....

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Why important ....

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Attribute 2 ....

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Why important ....

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[6]

Turn over

(b) RGIS advertises the IT Technician job using social media.

Explain **two** advantages of advertising the IT Technician job using social media.

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[4]

23 RGIS uses physical security methods to prevent unauthorised access to its data centre.

(a) Explain **two** physical security methods that RGIS would use to prevent unauthorised access to its equipment.

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[4]

(b) Before RGIS disposes of old computer equipment, it is electromagnetically wiped.

Explain why equipment is elecromagnetically wiped.

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END OF QUESTION PAPER

ADDITIONAL ANSWER SPACE

If additional space is required, you should use the following lined page(s). The question number(s) must be clearly shown in the margin(s).

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