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Write your **student number** in the boxes above.

Letter

VET Information and Communications Technology

Question and Answer Book

VCE Examination – Tuesday 11 November 2025

- Reading time is **15 minutes**: 9.00 am to 9.15 am
- Writing time is **1 hour 30 minutes**: 9.15 am to 10.45 am

Approved materials

- One scientific calculator

Materials supplied

- Question and Answer Book of 24 pages
- Multiple-Choice Answer Sheet

Instructions

- Follow the instructions on your Multiple-Choice Answer Sheet.
- At the end of the examination, place your Multiple-Choice Answer Sheet inside the front cover of this book.

Students are **not** permitted to bring mobile phones and/or any unauthorised electronic devices into the examination room.

Contents	pages
Section A (20 questions, 20 marks)	2–7
Section B (13 questions, 70 marks)	8–21

Section A – Multiple-choice questions

Instructions

- Answer **all** questions in pencil on your Multiple-Choice Answer Sheet.
 - Choose the response that is **correct** or that **best answers** the question.
 - A correct answer scores 1; an incorrect answer scores 0.
 - Marks will **not** be deducted for incorrect answers.
 - No marks will be given if more than one answer is completed for any question.
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Question 1

A business requests a wired small office / home office (SOHO) network installation.

Which cabling standard provides the best data transfer speed for a 10 Gbps connection?

- A. WAN
- B. CAT5
- C. CAT6
- D. Wi-Fi 5

Question 2

You discover a colleague using copyrighted material inappropriately.

What is the best action?

- A. Log it with the IT department.
- B. Report it to the Compliance Officer.
- C. Use it, as it helps the project's outcome.
- D. Assume it is authorised by the Business Manager.

Question 3

What is the purpose of investigating and documenting support issues affecting a client?

- A. to avoid resolving the issue
- B. to delay the support process
- C. to validate the client's feelings
- D. to gather relevant information and document findings

Question 4

Which one of the following steps is **not** part of the process for reviewing client support issues?

- A. Check for new problems logged by the client.
- B. Investigate and document support issues affecting the client.
- C. Listen to client feedback and maintain the same work practices.
- D. Notify the client of the results of the investigation and provide advice.

Question 5

Luda runs a small IT support business, and has been asked to provide a solution for the office of a small cleaning company.

Initial discussions about requirements of the number and location of workstations will need to be held with

- A. members of the cleaning crew.
- B. Issy, who is the business owner.
- C. all staff who are likely to use the workstations.
- D. everyone who works in the building.

Question 6

Luda's IT support business is upgrading the software used by a small accounting firm.

When considering support for the firm, Luda will need to do which one of the following?

- A. Tell the firm's owners what support they need.
- B. Make sure the software is running properly, and give the business access to a Help Desk.
- C. Have a discussion with the owners before telling them what support is required for users of the software.
- D. Interview the software's users to determine their level of experience and decide what type of support they will require.

Question 7

Luda's IT support business has been asked to provide an appropriate backup plan for the accounting firm, which processes up to six invoices per hour.

Backups should be kept in

- A. a secure online facility.
- B. the home of the business owner.
- C. a secure cupboard within the building.
- D. one of the workstations for easy access if needed.

Question 8

When developing a SOHO network design, which factor is **least** likely to influence the choice of network topology?

- A. budget constraints
- B. number of devices
- C. physical layout of the office
- D. the client's preferred brand of equipment

Question 9

The default route for a SOHO network is set as 10.10.10.5

Which of the following IP addresses is on the same subnet?

- A. 172.16.10.5
- B. 192.168.10.5
- C. 10.10.10.200
- D. 10.10.10.410

Question 10

A code of ethics covers a number of items.

Which four items are included?

- A. fair treatment, privacy, rules, regulations
- B. privacy, communication, rules, regulations
- C. privacy, honesty, communication, regulations
- D. fair treatment, privacy, communication, honesty

Question 11

A company wants to limit guest wi-fi access to prevent interference with internal operations.

What is the best configuration to achieve this?

- A. Use a static IP for guest devices.
- B. Disable all wireless security features.
- C. Enable WEP security on the guest network.
- D. Create a guest wireless network with limited LAN access.

Question 12

A notifiable data breach occurs when

- A. confidential information that an organisation or agency holds is subjected to unauthorised access.
- B. any information that an organisation or agency holds is subjected to unauthorised access or disclosure.
- C. personal information that an organisation or agency holds is lost or subjected to unauthorised access or disclosure.
- D. corporate information that an organisation or agency holds has been accessed by a malicious actor and held for ransom.

Question 13

Chelsea Maie Secondary College is planning to host a convention for ICT students from across Victoria. The college has decided to create an unsecured 802.11ac wireless network that will be available to all of the 3000 students attending.

What are the primary benefits of selecting 802.11ac for this specific scenario?

- A. high level of security and ability to add a guest network
- B. high level of security and wide range of device compatibility
- C. high cost of implementation and ability to connect a large number of users at once
- D. high level of device compatibility and ability to connect a large number of users at once

Question 14

Australia's Artificial Intelligence Ethics Principles are designed to ensure that artificial intelligence (AI) is safe, secure and reliable.

These principles should be applied

- A. on a voluntary basis.
- B. every time AI is used.
- C. where there is significant risk from using AI.
- D. as a substitute to existing AI regulations and practices.

Question 15

Laura is considering an upgrade to new cloud-based design software for her printing business. The user licence model would cost \$60 per month per user, including updates and support. Laura also wants to add the supplementary 'AI tools' package, which costs an additional \$10 per month per user. The minimum contract length for this licence model is two years. Laura has three employees who require the software.

The total cost of the new software to Laura's business would be

- A. \$5040
- B. \$4350
- C. \$2520
- D. \$1680

Question 16

Which one of the following is a key task for a systems administrator to ensure organisational security?

- A. limiting permissions
- B. preventing all updates
- C. restricting access to files
- D. providing access control and enforcing security policies for software and networks

Question 17

Rodney is a graphic artist who has been using a generative artificial intelligence (GenAI) tool. The tool was created by local university students as part of a project and made freely available for use online. Rodney prompts the tool with basic information and an image is generated.

The copyright for the image belongs to

- A. no one.
- B. Rodney.
- C. the university.
- D. Rodney's employer.

Question 18

Why are clear IP and ethics policies essential for organisations?

- A. for employee access
- B. for legal compliance
- C. to reduce training needs
- D. to help competitors understand ethical stances

Question 19

While troubleshooting a network, a technician performs a ping test to diagnose connectivity issues, and detects a high percentage of lost packets.

What does this typically indicate?

- A. The network is correctly configured.
- B. There is a potential bottleneck or hardware failure.
- C. The router does not support dynamic IP addressing.
- D. The server is not designed to respond to ping requests.

Question 20

The process of diagnosing and repairing faults is a normal part of a computer technician's daily routine.

The correct order of this process would be

- A.** identify faulty equipment
test faulty equipment
analyse test results
develop a maintenance plan
review past fault data
liaise with relevant personnel and obtain approvals
obtain components and repair
- B.** identify faulty equipment
test faulty equipment
develop a maintenance plan
analyse test results
liaise with relevant personnel and obtain approvals
review past fault data
obtain components and repair
- C.** identify faulty equipment
test faulty equipment
analyse test results
review past fault data
develop a maintenance plan
liaise with relevant personnel and obtain approvals
obtain components and repair
- D.** identify faulty equipment
test faulty equipment
analyse test results
liaise with relevant personnel and obtain approvals
develop a maintenance plan
review past fault data
obtain components and repair

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Section B

Instructions

- Answer **all** questions in the spaces provided.
 - Write your responses in English.
 - Unless otherwise indicated, the diagrams in this book are **not** drawn to scale.
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Question 1 (2 marks)

Fatima works at an arts college Help Desk. A music teacher has called to request assistance with a new audio application that will not run on his laptop.

List two troubleshooting questions Fatima can ask to try to isolate the problem.

Question 1 _____

Question 2 _____

Question 2 (6 marks)

A large corporation, LemarliData, recently experienced a cyber attack where an email tricked an employee into providing their login credentials. Using these credentials, the attacker accessed sensitive client information, including names, contact details and financial records. The breach was discovered three days later, and the corporation's IT team worked to identify the scope of the breach and secure the system.

LemarliData's privacy policy states that client information is collected for service delivery and is protected under the Australian Privacy Principles.

- a. Identify the type of cyber attack that occurred and one way to prevent it. 2 marks

Type _____

Prevention _____

- b. List the four steps, in the correct order, that LemarliData must follow when managing the data breach. 2 marks

Step 1 _____

Step 2 _____

Step 3 _____

Step 4 _____

- c. LemarliData collects customer information in compliance with its privacy policy.
Explain how the privacy policy affects its obligations to its clients in this situation. 2 marks

Question 3 (4 marks)

A graphics company experiences frequent bottlenecks that create a lag in the network when multiple users access shared files on the network. You suspect that the network setup might be contributing to the issue.

- a. Identify two potential causes of the bottleneck. 2 marks

Cause 1 _____

Cause 2 _____

- b. Propose two solutions to improve performance. 2 marks

Solution 1 _____

Solution 2 _____

Question 4 (6 marks)

Luda’s IT support business has been asked to provide support for an accounting firm that is expanding into new offices.

- a. List two important questions that Luda needs to ask the client before offering a proposal. 2 marks

Question 1 _____

Question 2 _____

- b. How can Luda investigate previous IT support issues that the client has experienced? 1 mark

- c. Once the new changes are implemented, more training will be provided as Luda has seen that users have required high levels of support. Provide justification for five half-days of training rather than one intensive day. 3 marks

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Question 5 (5 marks)

Paul is the system administrator for a community leisure centre. Many of the staff are employed casually, have several days between shifts, and often forget their login credentials. This has resulted in staff creating simple passwords, which increases the chance of a security breach.

Paul wants to enforce the use of strong password protocols within the organisation. He creates a GPO that brings together a collection of password policies, including complexity requirements and ensuring passwords are regularly changed.

- a.** What does GPO stand for? 1 mark

- b.** At what user level would this GPO be applied? 1 mark

- c.** What is the best practice for communicating the password changes to staff? Give **one** reason why this is most effective. 2 marks

- d.** How can Paul identify whether there have been any issues with the initial implementation? 1 mark

Question 6 (3 marks)

Kiaan works in an IT support role for a graphic design group. Following a recent audit, Kiaan has been asked by his manager to review the current data backup strategy for the group and identify three potential backup options to consider.

Listed below are the backup options and corresponding backup types for each day.

Day	Option A	Option B	Option C
Monday	Full	Full	Full
Tuesday	Full	Incremental	Incremental
Wednesday	Full	Differential	Incremental
Thursday	Full	Incremental	Incremental
Friday	Full	Differential	Incremental

- a. Which type of backup only records the data that has changed since the last backup operation of any type?

1 mark

- b. Backups are completed at the end of each workday.

If a critical server failed on Friday morning and all the current week’s data has to be recovered, explain why Option B would have an advantage over Option C in restore time.

2 marks

Question 7 (8 marks)

A private golf club has an annual turnover of \$5 million. Members have complained that they are finding it increasingly difficult to contact the clubhouse by phone, so the club is moving to an online booking system. This would allow members to book a game of golf as well as enter competitions throughout the week. Most members are generally happy with the idea, but some older members would prefer to continue booking games of golf by phone.

- a. What is an ethical consideration the golf club should consider when implementing the new system? 2 marks

- b. What could the club do to help members transition to the new system? 1 mark

- c. An equipment sponsor has offered to support a competition with prizes for the top three places. The sponsor has requested that the club allow access to each participant's phone number and email for marketing purposes. The club has created a consent form and sent a link to members participating in the new competition.

List four requirements the consent form should include.

4 marks

1. _____
2. _____
3. _____
4. _____

- d. Why is the club required to adhere to the *Privacy Act 1988*? 1 mark

Use the following information to answer Questions 8–13.

Chelsea Maie Secondary College is located in the northern suburbs of Melbourne. The college serves a student population of approximately 900. It has a large number of desktop computers, alongside notebooks provided for both students and staff, ensuring sufficient access to technology for educational purposes. The IT department is well staffed with a combination of full-time and part-time employees who manage and support the school’s technological infrastructure.

Question 8 (3 marks)

As part of the IT support strategy, two options are being considered to support students whose computers have malfunctioned:

- Option 1: Maintain a stock of spare parts for the recently purchased computers.
- Option 2: Keep a number of older, slower laptops and desktops that can still run the current software.

State which option best supports learning and justify your answer.

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Question 9 (5 marks)

Alison is the VCE science coordinator and has been training an online AI tool to develop exam-style revision questions. Alison trains the tool by uploading the entire digital textbook for each of the science subjects. She then organises the questions generated into booklets that the teachers can distribute. Alison also sells a more comprehensive version of the booklets on her personal blog site.

- a. Discuss three concerns in relation to intellectual property (IP), ethics and privacy regarding Alison's actions.

3 marks

IP _____

Ethics _____

Privacy _____

- b. State two potential consequences Alison may face.

2 marks

Consequence 1 _____

Consequence 2 _____

Question 10 (4 marks)

Angus is a member of the IT department. He is called by Jenny, a teacher whose computer will not connect wirelessly to the data projector in her classroom.

Angus thanks Jenny and says he will look into the problem before responding to her.

- a. What are two tasks Angus must check in the Help Desk logs before replying to Jenny? 2 marks

Task 1 _____

Task 2 _____

- b. Why does Angus need to complete the tasks identified in **part a** before replying to Jenny? 2 marks

Task 1 _____

Task 2 _____

Do not write in this area.

Question 11 (3 marks)

The college has recently experienced a data breach when a student guessed a staff member’s password. The principal has instructed the IT department to enhance its login strategy.

Recommend a new login strategy, and explain one advantage and one disadvantage of the chosen strategy.

Strategy _____

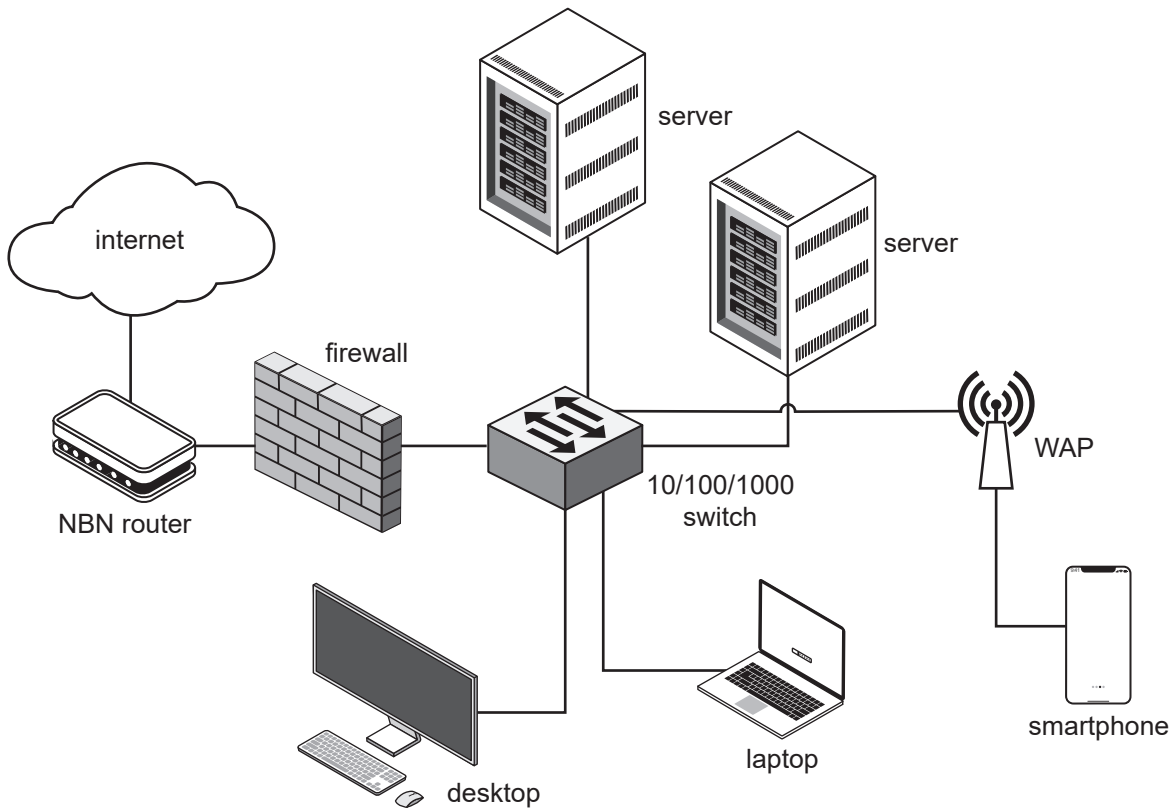
Advantage _____

Disadvantage _____

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Question 12 (15 marks)

The college has just set up a new campus in the western suburbs, and has configured the network access as illustrated below.



a. Explain why the switch has been placed where it is. 2 marks

b. Explain the role of the firewall in this network. 2 marks

Do not write in this area.

- c.** Identify and explain a security control that should be placed on the network to allow smartphones to securely access the network. 2 marks

- d.** What advantages does a switch have over a hub in this network? 2 marks

- e.** Describe the purpose of a DNS in this network. 2 marks

- f.** What is an advantage of having a local DNS? 1 mark

- g.** On the diagram on page 18, circle where the DNS would be located. 1 mark

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- h.** Angus has been transferred to the new campus, and one of the first tasks he has been assigned is to set up the new media room with 20 all-in-one PCs. The new equipment is to be placed on benches around the edges of the room.

List three workplace safety procedures Angus should follow when moving the PCs onto the benches.

3 marks

Procedure 1 _____

Procedure 2 _____

Procedure 3 _____

Question 13 (6 marks)

Angus is managing the collection of feedback from staff at the new campus. The feedback should relate to the network setup and facilities.

- a.** Explain a specific purpose of collecting feedback. 2 marks

- b.** Outline a principle that a feedback form should adopt to ensure the information generated is useful. 2 marks

- c.** What is the next step for Angus after creating a feedback form? 1 mark

- d.** Why is it important to review the feedback from staff? 1 mark

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