

SMARTWIZ

GRADE 12 COMPUTER APPLICATIONS TECHNOLOGY (CAT) EXAM

MARKS: 100

MARKS	

TIME: 2 HOURS

SCHOOL _____

CLASS (eg. 4A) _____

SURNAME _____

NAME _____

Instructions for Learners:

- Read all instructions carefully before you begin the exam.
- Write your full name and student number clearly on the answer sheet/book.
- Answer all questions unless otherwise instructed.
- Show all your work/calculations where necessary.
- Write neatly and clearly.
- Use only a blue or black pen. Do not use correction fluid or tape.
- Electronic devices (calculators, cell phones, etc.) are not allowed unless explicitly permitted.
- Raise your hand if you have any questions.
- Do not talk to other learners during the exam.
- Any form of dishonesty will result in immediate disqualification from the exam.

This exam consists of Five pages, including the cover page.

SECTION A: MATCHING COLUMN A WITH COLUMN B (20 marks)

Match the term in **Column A** with the correct description in **Column B**. Write the letter of the correct match next to the question number.

Column A	Column B
1. Firewall	A. A software that prevents unauthorized access to a network
2. Spreadsheet	B. Stores data in rows and columns and can perform calculations
3. URL	C. Unique address of a webpage on the internet
4. Cache memory	D. Temporary storage that speeds up data access
5. Phishing	E. Fraudulent attempt to obtain sensitive information
6. Database	F. Collection of organized data stored electronically
7. Backup	G. A copy of data stored in case of loss or damage
8. Operating System	H. Software managing computer hardware and software resources
9. Cloud Computing	I. Using remote servers hosted on the internet to store/process data
10. Trojan Horse	J. Malware disguised as legitimate software

Answers:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

SECTION B: TRUE OR FALSE (10 marks)

Write **True** or **False** next to each statement.

1. RAM is non-volatile memory. _____
2. A spreadsheet can be used to create charts. _____
3. Software updates help protect a computer from security threats. _____
4. A printer is an input device. _____
5. An IP address identifies a computer on a network. _____
6. The “Undo” command reverses the last action in most software. _____
7. Cookies store permanent data on your computer. _____
8. The internet and the World Wide Web are the same thing. _____
9. HTML is a programming language. _____
10. A domain name is easier to remember than an IP address. _____

SECTION C: SHORT ESSAY QUESTIONS (30 marks)

Answer each question in 3–5 full sentences.

1. (10 marks) Describe the difference between **hardware** and **software**. Give two examples of each.

2. (10 marks) Explain the importance of **data validation** in a database or spreadsheet. Give one example of data validation.

3. (10 marks) Discuss three ways a computer user can protect their device from malware.

SECTION D: SCENARIO-BASED QUESTIONS (20 marks)

Read the scenario and answer the questions that follow.

You are working for a small company. Your manager wants you to create a contact list for all employees and ensure that data is safe.

1. Name two types of data you would include in the contact list.

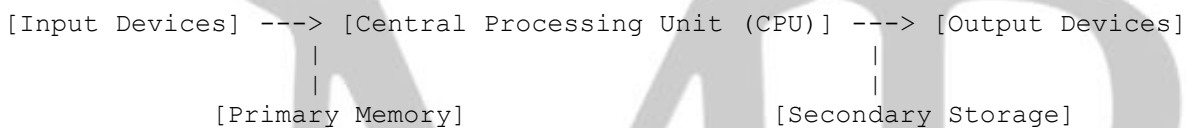
2. Explain how you would ensure the data is backed up regularly.

3. Suggest two ways to prevent unauthorized access to the contact list file.

4. Your manager asks for the contacts to be sorted alphabetically by last name. Which software feature would you use?

SECTION E: IMAGE-BASED QUESTION (20 marks)

Look at the diagram below showing a computer system's components. Answer the questions.



1. Name two examples of **input devices**.

2. What is the role of the **CPU** in this system?

3. Give two examples of **output devices**.

4. Explain the difference between **primary memory** and **secondary storage**.

TOTAL: 100 MARKS

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✓ SECTION A: MATCHING (20 marks)

Award 2 marks each for correct matches.

1. A – Firewall: A software that prevents unauthorized access to a network
2. B – Spreadsheet: Stores data in rows and columns and can perform calculations
3. C – URL: Unique address of a webpage on the internet
4. D – Cache memory: Temporary storage that speeds up data access
5. E – Phishing: Fraudulent attempt to obtain sensitive information
6. F – Database: Collection of organized data stored electronically
7. G – Backup: A copy of data stored in case of loss or damage
8. H – Operating System: Software managing computer hardware and software resources
9. I – Cloud Computing: Using remote servers hosted on the internet to store/process data
10. J – Trojan Horse: Malware disguised as legitimate software

✓ SECTION B: TRUE OR FALSE (10 marks)

1. False (RAM is volatile)
2. True
3. True
4. False (Printer is output device)
5. True
6. True
7. False (Cookies are small temporary files)
8. False (Internet is the network; WWW is service on it)
9. False (HTML is a markup language)
10. True

Award 1 mark per correct True/False answer.

✓ SECTION C: SHORT ESSAY QUESTIONS (30 marks)

1. Hardware vs Software (10 marks)

- Hardware: Physical parts of a computer (Examples: keyboard, monitor)
- Software: Programs and applications that run on hardware (Examples: Microsoft Word, antivirus software)

Mark clarity, examples, and explanation.

2. Data Validation (10 marks)

- Ensures data entered is correct and within allowed parameters
- Example: Restricting age field to numbers between 18 and 65
Mark explanation and example.

3. **Protecting from Malware (10 marks)**

- Install antivirus software
- Avoid clicking unknown links or attachments
- Keep software updated
Mark up to three reasonable methods.

SECTION D: SCENARIO QUESTIONS (20 marks)

1. Types of data:

- Names
- Phone numbers
(Mark any two relevant employee contact details)

2. Data backup:

- Regular automatic backups to external drives or cloud storage
- Schedule backups daily or weekly
(Mark explanation of backup method)

3. Prevent unauthorized access:

- Use strong passwords
- Restrict file permissions/access rights
(Mark two valid methods)

4. Sorting alphabetically feature:

- Use the “Sort” function in spreadsheet or database software
(Mark correct naming of sorting tool)

SECTION E: IMAGE-BASED QUESTIONS (20 marks)

1. Input devices examples (2 marks):

- Keyboard
- Mouse
(Other acceptable answers: scanner, microphone, touchscreen)

2. CPU role (4 marks):

- Processes instructions
- Controls computer operations
- Performs calculations

3. Output devices examples (2 marks):

- Monitor
 - Printer
- (Other acceptable: speakers, projector)

4. Primary memory vs secondary storage (4 marks):

- Primary memory is volatile and stores data temporarily (RAM)
 - Secondary storage stores data permanently (hard drive, SSD)
- (Mark clear difference)

TOTAL MARKS = 100

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