

# 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: Multiple Choice Questions (20 × 1 = 20 marks)

Write the **letter** of the correct answer only (e.g., I. A)

1. Which of the following is NOT a function of an operating system?

- a) Memory management
- b) File management
- c) Word processing
- d) Process management

**Answer:** .....

2. In a spreadsheet, which function would you use to find the highest value in a range of cells?

- a) =MIN()
- b) =AVERAGE()
- c) =MAX()
- d) =COUNT()

**Answer:** .....

3. What does the acronym 'URL' stand for?

- a) Uniform Resource Locator
- b) Universal Resource Locator
- c) Uniform Retrieval Locator
- d) Universal Retrieval Locator

**Answer:** .....

4. Which of the following is a type of malware?

- a) Antivirus
- b) Firewall
- c) Trojan horse
- d) Backup

**Answer:** .....

5. In database terminology, what is a 'primary key'?

- a) A field that uniquely identifies each record
- b) A field that allows duplicate values
- c) A field that is indexed for faster search
- d) A field that stores large text data

**Answer:** .....

6. Which of the following is an example of an input device?

- a) Monitor
- b) Keyboard
- c) Printer
- d) Speaker

**Answer:** .....

7. What is the main purpose of a firewall in network security?

- a) To monitor network traffic
- b) To prevent unauthorized access to or from a private network
- c) To store backup data
- d) To encrypt data transmissions

**Answer:** .....

8. Which of the following is a feature of cloud computing?

- a) Limited storage capacity
- b) Remote access to data and applications
- c) Requires physical storage devices
- d) Only accessible from specific locations

**Answer:** .....

9. In Microsoft Word, which shortcut key is used to save a document?

- a) Ctrl + P
- b) Ctrl + S
- c) Ctrl + C
- d) Ctrl + V

**Answer:** .....

10. What does the 'HTTP' protocol stand for?

- a) HyperText Transfer Protocol
- b) HyperText Transmission Protocol
- c) Hyper Transfer Text Protocol
- d) Hyper Transfer Transmission Protocol

**Answer:** .....

11. Which of the following is a feature of a spreadsheet application?

- a) Word processing
- b) Data analysis and visualization
- c) Database management
- d) Email communication

**Answer:** .....

12. In database design, what is the purpose of a 'foreign key'?

- a) To uniquely identify each record
- b) To link two tables together
- c) To store large text data
- d) To enforce data integrity within a table

**Answer:** .....

13. Which of the following is a characteristic of a 'wide area network' (WAN)?

- a) Covers a small geographical area
- b) Connects devices within a single building
- c) Connects devices across large geographical areas
- d) Uses only wireless communication

**Answer:** .....

14. In Microsoft Excel, which function is used to calculate the average of a range of cells?

- a) =SUM()
- b) =AVERAGE()
- c) =COUNT()
- d) =PRODUCT()

**Answer:** .....

15. What is the primary function of an operating system?

- a) To manage hardware resources
- b) To provide internet access
- c) To run applications
- d) To store data

**Answer:** .....

16. Which of the following is an example of a storage device?

- a) Monitor
- b) Hard drive
- c) Keyboard
- d) Mouse

**Answer:** .....

17. In database terminology, what is a 'record'?

- a) A single data element
- b) A collection of related fields
- c) A set of related tables
- d) A type of query

**Answer:** .....

18. Which of the following is a type of system software?

- a) Word processor
- b) Web browser
- c) Operating system
- d) Spreadsheet application

**Answer:** .....

19. What does the acronym 'BIOS' stand for?

- a) Basic Integrated Operating System
- b) Basic Input Output System
- c) Binary Input Output System
- d) Basic Input Operating System

**Answer:** .....

20. In Microsoft PowerPoint, which feature allows you to add visual effects to slides?

- a) Transitions
- b) Animations
- c) Themes
- d) Layouts

**Answer:** .....



## SECTION B: Short Answer Questions (30 Marks)

**1. Define the following terms:**

a) Operating System

**Answer:**

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b) Spreadsheet

**Answer:**

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c) Database

**Answer:**

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d) Malware

**Answer:**

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e) Cloud Computing

**Answer:**

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**2. Explain the difference between 'RAM' and 'ROM'.**

**Answer:**

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**3. Describe the steps involved in creating a simple database in Microsoft Access.**

**Answer:**

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**4. Discuss the importance of data security and list three methods to protect data.**

**Answer:**

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**5. What is the purpose of a 'backup' and how can data be backed up effectively?**

**Answer:**

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## SECTION C: Practical Application (50 Marks)

**Complete these tasks on your computer and save your work as instructed.**

Ensure your files are saved correctly and submitted according to your teacher's instructions.

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### Task 1: Microsoft Word


- a) Create a new document titled '**Digital Portfolio**'
  - b) Insert a **header** with the title
  - c) Add a **table of contents**
  - d) Include sections: **personal information, achievements, and skills**
  - e) Apply **styles and formatting** to headings and body text
  - f) Insert **page numbers** in the footer
  - g) Save as '**Portfolio\_YourName.docx**'
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### Task 2: Microsoft Excel

- a) Create a workbook titled '**Portfolio Data**'
- b) Enter the following data in the first sheet:

Name	Age	Skill Level	Years of Experience
John Doe	30	Advanced	5
Jane Smith	25	Intermediate	3
Alex Brown	28	Beginner	1

- c) Format the data as a **table**
  - d) Apply **conditional formatting** to highlight "Advanced" skill levels
  - e) Create a **bar chart** for years of experience
  - f) Save the file as '**Portfolio\_Data\_YourName.xlsx**'
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 **TOTAL: 100 MARKS**

# MEMO

## SECTION A: Multiple Choice Questions (20 x 1 = 20 marks)

1. c) Word processing
2. c) =MAX()
3. a) Uniform Resource Locator
4. c) Trojan horse
5. a) A field that uniquely identifies each record
6. b) Keyboard
7. b) To prevent unauthorized access to or from a private network
8. b) Remote access to data and applications
9. b) Ctrl + S
10. a) HyperText Transfer Protocol
11. b) Data analysis and visualization
12. b) To link two tables together
13. c) Connects devices across large geographical areas
14. b) =AVERAGE()
15. a) To manage hardware resources
16. b) Hard drive
17. b) A collection of related fields
18. c) Operating system
19. b) Basic Input Output System
20. a) Transitions

✓ **Total: 20 marks**

## SECTION B: Short Answer Questions (30 marks)

### 1. Definitions:

- a) **Operating System** – Software that manages computer hardware and software resources. (2)
- b) **Spreadsheet** – Application software used for calculations and data analysis in tabular format. (2)
- c) **Database** – Structured collection of data that can be easily accessed, managed, and updated. (2)
- d) **Malware** – Malicious software intended to harm or exploit systems. (2)
- e) **Cloud Computing** – The use of internet-based services for storage, computing, and software. (2)

### 2. Difference between RAM and ROM:

- RAM is volatile, used for temporary data storage.
- ROM is non-volatile, stores permanent system data.

✓ (4)

### 3. Steps to create a simple database in MS Access:

- Open Access and select "Blank Database".
- Create tables and define fields with appropriate data types.

- Set a primary key.
  - Save and name the database.
- ✓ Accept any 4 correct steps (1 mark each). (4)

#### 4. Importance of data security + 3 methods:

- Data security prevents unauthorized access, data loss, and ensures privacy.
- Methods:
- Use of strong passwords
  - Firewalls/antivirus software
  - Regular backups
- ✓ (5)

#### 5. Purpose of a backup and effective backup methods:

- Ensures data recovery in case of failure/loss.
- Methods:
- External hard drives
  - Cloud storage
  - Scheduled automatic backups
- ✓ (5)

✓ **Total: 30 marks**

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### SECTION C: Practical Application (50 marks)

#### Microsoft Word Tasks:

- Document titled correctly – (2)
- Header with title – (2)
- Table of contents inserted using built-in style – (3)
- Sections added: personal info, achievements, skills – (3)
- Proper use of styles and headings – (4)
- Page number in footer – (2)
- Document saved correctly – (1)

✓ Subtotal: **17 marks**

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#### Microsoft Excel Tasks:

- Workbook created and named correctly – (1)
- Data entered accurately – (3)
- Data formatted as a table – (2)
- Conditional formatting for 'Advanced' – (3)



- e) Bar chart created correctly – (4)
- f) Workbook saved with correct filename – (1)

✓ Subtotal: **14 marks**

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**Presentation and formatting quality (combined across tasks)**

- Logical layout and clear formatting – (6)
- Appropriate fonts, spacing, and alignment – (5)
- No spelling/grammar errors – (3)
- All files named and saved correctly – (5)

✓ Subtotal: **19 marks**

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✓ **Total: 100 marks**

MYST PATHWORKS