SMARTWIZ

GRADE11 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 cheating will result in immediate disqualification from the exam.

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

SECTION A: CONCEPTS & THEORY (40 marks)

QUESTION 1

1.1 Define the term *Operating System* (OS).

_____

_____

(3)

_____

1.2 Name FOUR types of software and give ONE example of each.
Type 1: _____ Example: _____
Type 2: _____ Example: _____
Type 3: _____ Example: _____
Type 4: _____ Example: _____

(8)

_____

1.3 Explain what is meant by *Cloud Computing*.

_____

_____

_____

(4)

_____

1.4 What are the advantages of using *Spreadsheets* in business? List at least THREE.

_____

_____

_____

(6)

_____

1.5 Differentiate between *hardware* and *software*.

_____

_____

(3)

1.6 What is a *Database*? Give TWO examples of database software.

(4)

1.7 Describe THREE ways to protect a computer system from malware.

(6)

SECTION B: APPLICATIONS & PRACTICAL KNOWLEDGE (30 marks)

QUESTION 2

2.1 What is the purpose of *data validation* in a spreadsheet?

(3)

2.2 Explain how *formulas* differ from *functions* in spreadsheets.

(4)

2.3 List and describe THREE types of charts commonly used in spreadsheet software.
Chart 1: _____ Description: _____
Chart 2: _____ Description: _____
Chart 3: _____ Description: _____

(6)

2.4 What is the purpose of *mail merge* in word processing?

(3)

2.5 Explain the difference between *save* and *save as* when working on a document.

(4)

2.6 What is a *backup*, and why is it important?

(4)

2.7 Name TWO advantages and TWO disadvantages of using social media in business.
Advantages:

1. _____
2. _____

Disadvantages:

1. _____
2. _____

(6)

SECTION C: COMPUTER SYSTEMS & INTERNET (30 marks)

QUESTION 3

3.1 What is an *IP address* and why is it important in networking?

_____

_____

(4)

_____

3.2 Explain the term *Wi-Fi* and mention TWO advantages of using Wi-Fi.

_____

_____

_____

(5)

_____

3.3 What is *phishing*, and how can users protect themselves against it?

_____

_____

_____

(5)

_____

3.4 Describe THREE components of a computer system and their functions.
Component 1: _____ Function: _____
Component 2: _____ Function: _____
Component 3: _____ Function: _____

(6)

_____

3.5 What is the purpose of an *Operating System* managing memory?

_____

_____

(3)

___

3.6 Describe TWO types of computer networks.

___

(4)

___

3.7 What is *software licensing* and why is it important?

___

(3)

___

END OF EXAM

TOTAL : 100

MEMO

SECTION A: CONCEPTS & THEORY (40 marks)

1.1 Operating System (OS)
Software that manages computer hardware and software resources and provides services for computer programs.

1.2 Types of software & examples:

- System software — Operating System (e.g., Windows)
- Application software — Word processor (e.g., Microsoft Word)
- Utility software — Antivirus (e.g., Norton)
- Programming software — Compiler (e.g., Turbo C)

1.3 Cloud Computing
Using remote servers hosted on the internet to store, manage, and process data rather than a local server or personal computer.

1.4 Advantages of spreadsheets in business:

- Automates calculations
- Easy to update and analyse data
- Can create charts and graphs
- Organises large datasets
- Supports decision making

1.5 Hardware vs Software:

- Hardware: Physical parts of a computer system (keyboard, monitor).
- Software: Programs and operating systems that run on the hardware.

1.6 Database & examples:
A collection of organized data that can be easily accessed, managed, and updated. Examples: Microsoft Access, Oracle.

1.7 Protecting from malware:

- Install antivirus software
- Regularly update software and OS
- Avoid suspicious links and downloads

SECTION B: APPLICATIONS & PRACTICAL KNOWLEDGE (30 marks)

2.1 Purpose of data validation:
To ensure that users enter correct and meaningful data in a spreadsheet.

2.2 Formulas vs Functions:

- Formulas are user-created expressions to calculate values.
- Functions are predefined formulas in spreadsheet software.

2.3 Types of charts:

- Pie chart: Shows parts of a whole as slices.
- Bar chart: Compares quantities using bars.
- Line chart: Displays data trends over time.

2.4 Purpose of mail merge:
To create personalized letters or emails by merging a template with a list of recipients.

2.5 Save vs Save As:

- Save updates the current document.
- Save As creates a new file or saves with a new name/location.

2.6 Backup:
A copy of data stored separately to prevent loss in case of system failure.

2.7 Social media advantages:

- Increases brand awareness
- Direct communication with customers
  Disadvantages:
- Can lead to negative publicity
- Risk of data breaches

SECTION C: COMPUTER SYSTEMS & INTERNET (30 marks)

3.1 IP Address:
A unique identifier for a device on a network that allows communication.

3.2 Wi-Fi & advantages:
Wireless technology to connect devices to the internet.
Advantages:

- Mobility/freedom from cables
- Multiple devices can connect simultaneously

3.3 Phishing & protection:
Fraudulent attempts to obtain sensitive info by pretending to be trustworthy.
Protection: Do not click suspicious links, verify sender, use security software.

3.4 Components & functions:

- CPU: Processes data and controls tasks.
- RAM: Temporary memory for active processes.
- Hard Drive: Stores data permanently.

3.5 OS managing memory:
Allocates and manages the computer's memory resources to ensure efficient operation.

3.6 Types of networks:

- LAN (Local Area Network): Connects computers in a small area.

- WAN (Wide Area Network): Connects computers over large geographical areas.

3.7 Software licensing:
Legal permission to use software, ensuring protection of intellectual property.

TOTAL : 100