



## **COMPUTER APPLICATIONS TECHNOLOGY REVISION BOOKLET 2025**

**YEAREND**

**Grade 12**

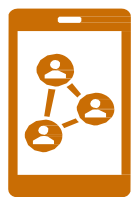


This revision program is designed to assist you in revising the critical content and skills covered during the Third term. The purpose is to prepare you to understand the key concepts/skills and to provide you with an opportunity to establish the required standard and the application of the knowledge necessary to succeed in the examination.

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## PURPOSE OF THE REVISION SUPPORT PACKAGE



*The aim of this Revision Package is for learners to use in their own learning, self-paced with little assistance by a teacher/tutor.*

This package will constitute the revision materials for CAT of some of the content that was done according to the WCED ATPs.

## DESIGN ELEMENTS OF THE PACKAGE



**The design elements for this resource which consists of Theory and Practical questions, will consist of:**

- Core content in the form of easily understood table
- Questions, with the appropriate cognitive levels, on the level of the questions asked in the final NSC examination papers. These questions conform to the 30:40:30 cognitive level blend as prescribed.
- Guidance to learners to what to look out for when questions are answered.
- A memorandum/marking guideline
- Where available, step-by-step guidance to answer some of the questions.
- Notes to a tutor for mediating the content

## CONTENT AND QUESTIONS

The content covered is all the Theory and Practical content covered in the CAPS

### DATAFILES

**Datafiles:** <https://wcedportal.co.za/eresource/255051>

The files that you need to complete the practical section is available via the link above. The files are provided in the form of password-protected executable files.

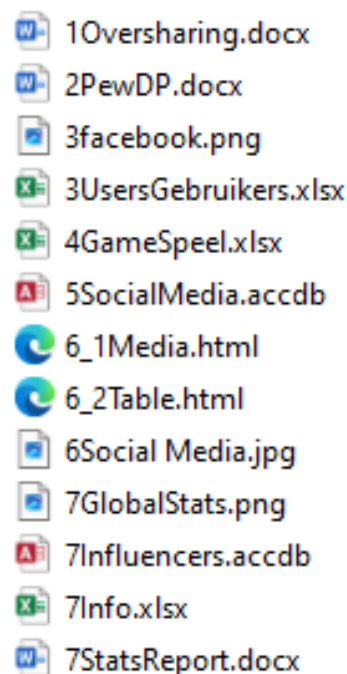
**NOTE:** Candidates must use the file **DataSept2023.exe**.

Do the following:

- Double click on the password-protected executable file.
- Click on the 'Extract' button.
- Enter the following password: **Fun4Today**

Once extracted, the list of files will be available in the folder **DataSept2023**. Rename the folder to your own name and surname and start your revision activities.

**Memoranda & Marking guides:** <https://wcedportal.co.za/eresource/255056>



## CAT Practical and Theory content framework

Topic	Sub-topics	Grade 10	Grade 11	Grade 12
Solution Development	Word Processing	<ul style="list-style-type: none"> <li>Documents</li> <li>Basic file management</li> <li>Basic paragraph</li> <li>Page Layout</li> <li>Tables</li> <li>View options</li> <li>Introduction to review and proofing functions</li> <li>Text, paragraphs and manipulation</li> <li>Graphics, shapes and diagrams</li> <li>Formatting and editing</li> <li>Introduction to integration</li> <li>Basic troubleshooting</li> <li>Lists and columns</li> <li>Protecting document</li> <li>Existing styles</li> <li>Table of Contents</li> <li>Basic referencing</li> </ul>	<ul style="list-style-type: none"> <li>File management</li> <li>Advanced document layout</li> <li>Customising</li> <li>Reviewing tools and proofing functions</li> <li>Electronic forms - Legacy</li> <li>Mail merge</li> <li>Styles</li> <li>Sections</li> <li>Reference functions</li> <li>File management:</li> <li>Editing-Paste special</li> <li>Page Layout Design-Themes</li> <li>Document Layout – Section Break, Header and Footers,</li> <li>Advance Page Number</li> <li>Customise Paragraphs</li> <li>Import/Export</li> <li>Integration techniques</li> <li>Troubleshooting</li> </ul>	<ul style="list-style-type: none"> <li>Advanced file handling</li> <li>Customise templates</li> <li>Import/export data</li> <li>Data sources</li> <li>Professional documents</li> <li>Use/reinforce word processing skills</li> <li>Integration techniques</li> <li>Troubleshooting</li> <li>Problem solving</li> </ul>
	Spreadsheet	<ul style="list-style-type: none"> <li>Basic skills and core concepts of spreadsheets</li> <li>Basic file management</li> <li>Cell reference</li> <li>Cell ranges: range names</li> <li>Basic calculations using basic operators</li> <li>Data types</li> <li>Basic functions</li> <li>Workbooks and worksheets</li> <li>Formatting and editing</li> <li>Introduction to calculations</li> <li>Introduction to formulae and functions</li> <li>Introduction to charts/graphs</li> <li>Types of Graphs</li> <li>Basic computational thinking</li> <li>Problem-solving techniques</li> <li>Introduction to error indicators</li> <li>Basic Troubleshooting</li> </ul>	<ul style="list-style-type: none"> <li>Advanced formatting</li> <li>Advanced formulas and functions</li> <li>Conditional formatting</li> <li>Print options</li> <li>Error indicators</li> <li>Graphs/charts</li> <li>Manipulate worksheets</li> <li>Import/export data</li> <li>Integration techniques</li> <li>Troubleshooting</li> </ul>	<ul style="list-style-type: none"> <li>Complex functions</li> <li>Function vs formula</li> <li>Subtotal feature</li> <li>Text functions</li> <li>Date and time calculations</li> <li>Named ranges</li> <li>Advanced graphs/charts</li> <li>Validation of data</li> <li>Integration techniques</li> <li>Troubleshooting</li> <li>Problem solving</li> </ul>
	Database	Not done	<ul style="list-style-type: none"> <li>Basic skills and basic knowledge in working with tables, records, fields and data types</li> <li>Records manipulation</li> <li>Basic field properties</li> <li>Formatting and editing</li> <li>Create Forms</li> <li>Basic queries</li> <li>Basic reports</li> <li>Calculations</li> <li>Report headers and footers</li> <li>Import/export data</li> <li>Changing the source of a report</li> <li>Integration techniques</li> <li>Troubleshooting</li> </ul>	<ul style="list-style-type: none"> <li>Reports</li> <li>Grouping information</li> <li>Calculation fields in queries and reports</li> <li>Data validation techniques</li> <li>Troubleshooting</li> <li>Problem solving</li> <li>Integration techniques</li> </ul>
	Web design	<b>HTML (basic) (refer to tag sheet)</b> <ul style="list-style-type: none"> <li>What is HTML?</li> <li>HTML syntax</li> <li>Basic HTML tags</li> <li>Basic text and text formatting</li> <li>Attributes</li> <li>HTML Comments</li> <li>Structure of a simple HTML page</li> <li>Basic Troubleshooting</li> </ul>	<b>HTML / Web design (refer to HTML tag sheet)</b> <ul style="list-style-type: none"> <li>HTML links</li> <li>HTML images</li> <li>HTML lists</li> <li>Attributes</li> <li>Cite tag (PAT only)</li> <li>Troubleshooting</li> </ul>	<b>HTML / Web design (refer to HTML tag sheet)</b> <ul style="list-style-type: none"> <li>HTML tables</li> <li>Border Attributes</li> <li>Table Formatting</li> </ul> Design a webpage

<b>Systems Technologies</b>	<b>Concepts of computing</b>	<ul style="list-style-type: none"> <li>• General model of a computing device</li> <li>• Introduction to data and information</li> <li>• Types of computing devices</li> <li>• Role of computing devices, ICTs</li> <li>• Advantages and disadvantages* of computing devices</li> <li>• GUI</li> <li>• Computer Management</li> <li>File Organisation and Compressions</li> </ul>	<ul style="list-style-type: none"> <li>• Information processing cycle</li> <li>• Role of ICTs</li> <li>• Types of computing devices</li> <li>• Computer categories</li> </ul>	<ul style="list-style-type: none"> <li>• Computer systems for different users/uses</li> <li>• Case studies/scenarios regarding use of ICTs</li> <li>• Use of computers in a variety of contexts</li> </ul>
	<b>Hardware (System Unit)</b>	<ul style="list-style-type: none"> <li>• Definition of hardware</li> <li>• Hardware components</li> <li>• Ports and connectors</li> <li>• Input and Output</li> <li>• Storage and Media</li> <li>• Peripherals</li> <li>• Hardware configuration</li> <li>• Processing</li> <li>• Scanning and reading devices</li> </ul>	<ul style="list-style-type: none"> <li>• Input, output, storage and processing</li> <li>• Mobile technology</li> <li>• Portable devices</li> <li>• Devices for users with disability</li> <li>• Alternative I/O and storage devices</li> <li>• Interpret adverts</li> <li>• Basic troubleshooting</li> </ul>	<ul style="list-style-type: none"> <li>• Appropriate use of devices</li> <li>• Buying decisions</li> <li>• Productivity issues</li> <li>• Factors influencing performance</li> <li>• Case studies</li> <li>• New technology</li> </ul>
	<b>Software</b>	<ul style="list-style-type: none"> <li>• Definition of software</li> <li>• Types of software</li> <li>• Software components</li> <li>• Definition and overview of system and application and utility software</li> <li>• Classification of software</li> <li>• Purpose and use of software</li> <li>Introduction to operating system concepts</li> </ul>	<ul style="list-style-type: none"> <li>• Software updates, versions and compatibility</li> <li>• Application software</li> <li>• System software</li> <li>• Web applications</li> <li>• Software for users with disability</li> <li>• Cloud based applications and storage</li> <li>• System requirements</li> <li>• Help files</li> </ul>	<ul style="list-style-type: none"> <li>• Productivity issues</li> <li>• Role of operating system</li> <li>• Utilities</li> <li>• Buying decisions</li> <li>• Human error potential</li> <li>• Case studies</li> <li>• New technology</li> <li>• Patches and Upgrades</li> </ul>
	<b>Computer management</b>	<ul style="list-style-type: none"> <li>• Introduction to using computing devices – working environment and keyboarding</li> <li>• Introduction to files and folders</li> <li>• File Manager</li> <li>• Print management</li> <li>• Adding hardware</li> </ul>	<ul style="list-style-type: none"> <li>• Software installation</li> <li>• File management</li> <li>• System properties</li> <li>• Basic troubleshooting</li> <li>• Factors influencing performance</li> </ul>	<ul style="list-style-type: none"> <li>• File properties, attributes and metadata</li> <li>• Housekeeping</li> <li>• Case studies</li> <li>• Troubleshooting</li> <li>• File Management: Extract a password protected .exe file</li> </ul>
<b>Network Technologies</b>	<b>Networks</b>	<p>Overview of basic concepts and introduction to networks:</p> <ul style="list-style-type: none"> <li>• What is a network?</li> <li>• Aims and objectives of networks</li> <li>• Facilitating communications and sharing hardware, software, data and information (Advantages/Disadvantages)</li> <li>• Basic security and privacy issues (Advantages/Disadvantages)</li> <li>• Overview and basic concepts:</li> <li>• Examples of common networks: <ul style="list-style-type: none"> <li>○ Internet <ul style="list-style-type: none"> <li>▪ Personal area network (PAN)</li> </ul> </li> <li>○ wearables <ul style="list-style-type: none"> <li>▪ Local area networks (LAN)</li> <li>▪ Home area network (HAN)</li> </ul> </li> </ul> </li> <li>• Network device: Modem, router and switch</li> <li>• Communication channel/media</li> <li>• Obtaining Internet access</li> <li>• ISP – Definition and purpose</li> </ul>	<ul style="list-style-type: none"> <li>• Local area networks (LAN and WLAN)</li> <li>• Basic components of a network – Overview and concepts</li> <li>• Internet of Things (IoT)</li> <li>• Fourth Industrial Revolution (4IR)</li> <li>• Uses of computer communications: social websites</li> <li>• Overview of portable and mobile Internet access (basic concepts – What is it? Where is it used? Examples)</li> <li>• Website accessibility</li> </ul>	<ul style="list-style-type: none"> <li>• Wide area networks (WAN)</li> <li>• Internet as an example of a WAN</li> <li>• Internet services (uses/purpose, advantages, disadvantages, limitations, examples): <ul style="list-style-type: none"> <li>○ Instant messaging</li> <li>○ Voice over Internet Protocol (VoIP)</li> <li>○ File sharing</li> <li>○ Concept of grid computing and cloud computing</li> </ul> </li> <li>• Government Internet services and information</li> <li>• Streaming-definition and uses</li> <li>• Make buying and informed decisions regarding Internet connection and access <ul style="list-style-type: none"> <li>○ Modem/router, types of connections, e.g./Fibre, wireless technologies, including their advantages, disadvantages and limitations</li> <li>○ ISP, Internet services offered by ISP</li> <li>○ Throttling and Shaping, Fair use policy</li> <li>○ Consideration of access points, coverage (wireless)</li> <li>○ Data transmission speed – measured megabits per second (mbps)</li> <li>○ CAP, bundle</li> <li>○ Concept of broadband and bandwidth</li> </ul> </li> </ul>

<b>Internet Technologies</b>	<b>Internet and the World Wide Web (WWW)</b>	<ul style="list-style-type: none"> <li>• Internet <ul style="list-style-type: none"> <li>○ What is the Internet?</li> <li>○ Internet addresses</li> </ul> </li> <li>• Overview of the World Wide Web (WWW) <ul style="list-style-type: none"> <li>○ Describe the WWW</li> <li>○ Web address/uniform resource locator (URL), URL shortener</li> <li>○ Web page, website, hyperlink</li> <li>○ Types of websites, their purpose/what they offer and examples</li> <li>○ Weblog/Vlog (blog), Wiki, social network, educational, web application</li> </ul> </li> <li>• Browsers <ul style="list-style-type: none"> <li>○ What is it? / Purpose</li> <li>○ Examples</li> </ul> </li> <li>• Search engines <ul style="list-style-type: none"> <li>○ What is it? / Purpose</li> <li>○ Common/generic examples</li> </ul> </li> <li>• Basic browsing and searching techniques <ul style="list-style-type: none"> <li>○ Keywords/key phrases</li> <li>○ Search engine operators</li> </ul> </li> <li>• Concept of downloading and uploading</li> <li>• ISP – Definition and purpose</li> </ul>	<ul style="list-style-type: none"> <li>• Explore web pages/websites and evaluate aspects such as:</li> <li>• Readability, navigation, consistency, layout, typography – link to word processing documents and forms</li> </ul>	
	<b>Electronic Communication</b>	<ul style="list-style-type: none"> <li>• What is e-communication?</li> <li>• What is a communication device?</li> </ul> <p>E-communication using a PC/mobile device</p> <ul style="list-style-type: none"> <li>• Overview of applications to facilitate e-communications: e-mail, web browser, instant messaging, text, picture and video messaging, mailing list, Weblog <ul style="list-style-type: none"> <li>○ What is it?</li> <li>○ What does it offer? / Purpose</li> </ul> </li> <li>• E-mail as a form of e-communication <ul style="list-style-type: none"> <li>○ Taxonomy of e-mail addresses</li> <li>○ ISP vs. web-based e-mail</li> </ul> </li> <li>• Register a web-based e-mail address</li> <li>• Basic e-mailing, how to: <ul style="list-style-type: none"> <li>○ Compose messages</li> <li>○ Send and receive, forward, reply to, reply to all</li> </ul> </li> <li>• Netiquette</li> <li>• Hyperlinks</li> <li>• Apply netiquette rules such as spelling check, messages, being courteous and concise, not gossiping, reducing the size of attachments and not typing in capital letters</li> </ul>	<ul style="list-style-type: none"> <li>• Managing e-mail: <ul style="list-style-type: none"> <li>○ Organise using e-mail folders</li> <li>○ Sort by, flag, prioritise</li> <li>○ Distribution lists, message rules</li> <li>○ E-mail software features such as Cc and Bcc fields, attachments and address books</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Types of digital communications such as video conferencing: <ul style="list-style-type: none"> <li>○ Advantages and disadvantages</li> <li>○ Good practices and bad practices</li> </ul> </li> <li>• Typical features of web browsers such as: <ul style="list-style-type: none"> <li>○ Bookmarks</li> <li>○ History and favourites</li> <li>○ Home page settings</li> <li>○ Blocking websites</li> <li>○ Caching</li> <li>○ Browser plug-ins – <ul style="list-style-type: none"> <li>• What are they? Why are they needed?</li> <li>• Examples: Pop-up blocker/Ad blocker, toolbar extension</li> </ul> </li> <li>○ Private browsing - Incognito and In private</li> </ul> </li> <li>• Uses of computer communications such as: <ul style="list-style-type: none"> <li>○ Wikis</li> <li>○ GPS, Geo-tagging</li> </ul> </li> <li>• Social networks (Blogs/vlogs, Podcast/vodcast)Digital communications: <ul style="list-style-type: none"> <li>○ Advantages, disadvantages and limitations</li> <li>○ Good practices</li> </ul> </li> <li>• Communication devices: Personal mobile devices</li> </ul>

<b>Information Management</b>	<b>Find &amp; Access data &amp; Information</b>	<ul style="list-style-type: none"> <li>Data vs. information</li> <li>Understanding of the problem/task</li> <li>Role of questions and questioning <ul style="list-style-type: none"> <li>Using questions</li> </ul> </li> <li>Utilising a plan to solve the problem/carry out the task</li> <li>Types of information sources</li> <li>Information and data gathering <ul style="list-style-type: none"> <li>Using a questionnaire</li> <li>Using one other source</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Task definition in different contexts – understanding the problem/task</li> <li>Questions and questioning <ul style="list-style-type: none"> <li>Utilising main question</li> <li>Formulating other questions</li> <li>Quality control of questions</li> </ul> </li> <li>Identifying appropriate sources</li> <li>Information and data gathering <ul style="list-style-type: none"> <li>Add questions to questionnaire</li> <li>Using one other source</li> <li>Quality control of information</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Reformulation of problem/task into a complete statement</li> <li>Questions and questioning <ul style="list-style-type: none"> <li>Formulate main question</li> <li>Formulating other questions</li> <li>Quality control of questions</li> </ul> </li> <li>New questions and discarding irrelevant questions as investigation develops</li> <li>Identifying appropriate sources</li> <li>Finding information and gathering data <ul style="list-style-type: none"> <li>Set a questionnaire</li> <li>Using two other sources</li> </ul> </li> <li>Advanced searching techniques</li> <li>Quality control of information <ul style="list-style-type: none"> <li>Information evaluation</li> <li>Website evaluation</li> </ul> </li> <li>Manage volumes of information</li> </ul>
	<b>Process data &amp; information</b>	<ul style="list-style-type: none"> <li>Information vs. knowledge</li> <li>Information sifting</li> <li>Engaging with information</li> <li>Tools and techniques for manipulating information <ul style="list-style-type: none"> <li>Make notes and summarise</li> </ul> </li> <li>Ethical use of information</li> <li>Processing data</li> <li>Utilising data questions</li> <li>Data handling – the role of the spreadsheet</li> </ul>	<ul style="list-style-type: none"> <li>Extracting useful information</li> <li>Utilising appropriate tools and techniques to process data/organise and manipulate information</li> <li>Processing data</li> <li>Adding data questions</li> <li>Data handling – the role of the spreadsheet and the database</li> <li>Analysis of data and information</li> <li>Trends and patterns</li> </ul>	<ul style="list-style-type: none"> <li>Using a variety of information</li> <li>Using the most appropriate information and data for processing</li> <li>Effective manipulation of information <ul style="list-style-type: none"> <li>Rework and/or combine</li> </ul> </li> <li>Processing data correctly into useful information using a variety of tools and techniques leading to a solution</li> <li>Use correct software for processing and manipulation</li> <li>Formulating data questions</li> <li>Data handling – the role of the spreadsheet and the database</li> <li>Meaningful analysis of data and information – trends and patterns</li> </ul>
	<b>Present Solution</b>	<ul style="list-style-type: none"> <li>Knowledge vs. insight</li> <li>Utilising specific software tools to communicate findings</li> <li>Simple report</li> <li>Personal understandings</li> <li>Organise information into logical groupings and flow</li> <li>Findings/conclusions</li> <li>Copyright and plagiarism</li> <li>Acknowledgement</li> </ul>	<ul style="list-style-type: none"> <li>Utilising appropriate software tools to communicate findings</li> <li>Report</li> <li>Interpreted knowledge and understanding</li> <li>Cohesive and logical organisation and flow of content and recommendations/conclusions</li> <li>Communication using supporting texts and graphics</li> <li>Copyright and plagiarism issues</li> <li>Correct referencing</li> </ul>	<ul style="list-style-type: none"> <li>Utilising best software tools in an integrated fashion to communicate findings</li> <li>Comprehensive report</li> <li>Interpreted knowledge and new understanding</li> <li>Present information in logical grouping and flow supported by appropriate texts and graphics to enhance understanding</li> <li>Cohesive and logical recommendations /conclusions</li> <li>Complete referencing using variety of tools and techniques</li> <li>Quality control of report</li> <li>Clear link between original task/problem, discussion and conclusion</li> </ul>
<b>Social Implications</b>	<b>Impact on Society</b>	<ul style="list-style-type: none"> <li>ICTs in everyday life</li> <li>ICT influence on life and lifestyles</li> <li>Economic reasons for using computing devices</li> <li>Communication etiquette</li> <li>Safe Internet and e-mail use</li> </ul>	<ul style="list-style-type: none"> <li>Enhancing accessibility</li> <li>Computer and human error</li> <li>Impact of ICTs in the workplace and employment practices</li> <li>Social engineering tricks</li> <li>Online safety and protection issues</li> <li>Protecting oneself when online</li> </ul>	<ul style="list-style-type: none"> <li>Distributed computing power</li> <li>Impact and use of social networking and virtual communities</li> <li>Tele-working/ telecommuting</li> <li>Information overload</li> <li>Different scenarios and case studies</li> </ul>

Legal, ethical, safety & security issues	<ul style="list-style-type: none"> <li>Ethical use of computing devices</li> <li>Basic security concepts</li> <li>Software piracy</li> <li>Intellectual property</li> <li>Licensing</li> <li>E-mail threats, issues and remedies</li> <li>Computer criminals</li> </ul>	<ul style="list-style-type: none"> <li>Hardware theft and vandalism</li> <li>Ethical use of networks</li> <li>Unauthorised access</li> <li>Network safety and security</li> <li>Privacy issues</li> <li>Information accuracy</li> <li>Data protection</li> <li>computing devices misuse</li> <li>Currency of protective software</li> <li>Verification and validation</li> <li>Authorising permission</li> </ul>	<ul style="list-style-type: none"> <li>Computer criminals and crimes</li> <li>Fraud scams</li> <li>Internet attacks</li> <li>Misuse of personal information</li> <li>Malware and safeguards</li> <li>Different scenarios and case studies</li> <li>Making recommendations</li> <li>New issues</li> </ul>
Health & Ergonomic issues	<ul style="list-style-type: none"> <li>Ergonomics to promote health and well-being</li> </ul>	<ul style="list-style-type: none"> <li>Factors that influence health</li> <li>Health risks</li> </ul>	<ul style="list-style-type: none"> <li>User-centred design in software</li> <li>Usability and functionality issues</li> <li>Interpret adverts</li> <li>Interpret scenarios</li> <li>Making recommendations</li> <li>Buying decisions</li> <li>New issues</li> </ul>
Environmental	<ul style="list-style-type: none"> <li>Green computing issues</li> <li>Environmental issues relating to the use of ICTs</li> </ul>	<ul style="list-style-type: none"> <li>Power settings and savings</li> </ul>	<ul style="list-style-type: none"> <li>Interpret scenarios</li> <li>Make recommendations</li> <li>New issues</li> </ul>

## I need help preparing for my CAT exam and:

### I know all my work quite well, but what can I do now?

- Focus on your examination preparation.
- Go through previous NSC examination papers using the guidance below
- Attempt the paper under examination conditions, e.g.,
  - 🕒 Don't use any resources (No notes, mind maps, textbooks or memoranda).
  - 🕒 Do the WHOLE 3-hour paper without any breaks.
  - 🕒 Once the 3 hours are done, note how far you have completed the paper and then complete the exam
  - 🕒 Time management is vital, and you now have a reference of your time management.
  - 🕒 Now that you are done with the paper, identify areas that need improvement (Where do I need to move faster, What sections do I need to revise, etc).
  - 🕒 Use the marking guideline or the memo and / or videos of the exam paper to mark your own work.
  - 🕒 Identify where you made mistakes, have lost marks or where you misunderstood a question.

### I am still struggling, and I need to focus on specific areas that I am weak in, what can I do?

- A practical exam is divided into SEVEN questions. Identity which questions are your weaker areas and then use the table below to work through that area.
- For each area:
  - 🕒 Review the lessons by either looking at your notes, lessons or videos from the ePortal or YouTube of the topics.
  - 🕒 Focus on small sections and focus only on that until you feel comfortable
  - 🕒 Practice the area by answering exam type questions. If you get stuck on a question, then refer back to your textbook for guidance, not the rubric or the memorandum.

**CAT NSC Examination support:** <https://wcedportal.co.za/eresource/255046>

# Theory Section

## SECTION A

### QUESTION 1: MATCHING COLUMNS

Choose a term/concept from COLUMN B that matches the description in COLUMN A. Write only the letter (A-O) next to the question number (1.1-1.10) in the ANSWER BOOK, for example 1.11 T.

COLUMN A	COLUMN B
1.1 A device connected to a computer designed to accept and read data from different types of storage media, such as SIM and SD cards and flash drives.	A. Google
1.2 A standard/port for connecting high-definition video devices, such as computer monitors, video projectors and digital television, etc.	B. Near field communication
1.3 A standard that allows devices such as smartphones to connect wirelessly simply by touching them together or bringing them into proximity.	C. Wearable devices
1.4 Example of a URL shortener	D. Card Reader
1.5 Physical objects are embedded with sensors, software, etc., which connect and exchange data with other devices and systems over the internet, not dependent on human intervention.	E. RAM
1.6 These devices have sensors which track information such as distance travelled, heart rate, oxygen saturation and temperature which can be transmitted to connected smart devices.	F. Click-jacking
1.7 Volatile memory	G. HDMI
1.8 Users are tricked into clicking on an item on a web page which acts as a concealed link.	H. Ransomware
1.9 Malware designed to encrypt or block access to your computer system and files until you pay a sum of money.	I. Authentication
1.10 An extra layer of security is added to your account to prevent someone from logging in, even if they have your password.	J. Internet of Things
	K. Phishing
	L. USB
	M. Big Data
	N. Bit.ly
	O. VGA

(10 x 1) = [10]

### QUESTION 2: MULTIPLE-CHOICE QUESTIONS

Various options are given as possible answers to the following questions. Choose the answer and write only the letter (A-D) next to the question number (2.1-2.10) in the ANSWER BOOK, for example 2.11 D.

2.1 **What is crowd funding?**

- A A sequence of blocks or groups of transactions that are linked or 'chained' together and distributed among the users.
- B A single idea or business practice is funded online by multiple small donations from volunteer contributors.
- C The creation of a learning environment where individuals use their computers to take part in teaching and learning.
- D It is a form of virtual, digital currency.

(1)

- 2.2 **Concept where students are allowed to bring and use their own portable devices such as smartphones, laptops, tablets, to school and access the network instead of a device owned/supplied by the company/institution.**
- A BOYD
  - B ISP
  - C BYOD
  - D Cloud computing (1)
- 2.3 **This device can wear out after using it for a long time as data can be written to or erased from the same place in flash memory for a limited number of times.**
- A HDD
  - B SSD
  - C CPU
  - D RAM (1)
- 2.4 **Structured and unstructured data sets that are analysed using computers to reveal trends and associations.**
- A Big Data
  - B Grid computing
  - C Internet Of Things
  - D Virtual Reality (1)
- 2.5 **Technology to create a simulation of a 3D-environment that can be interacted with by a person in a seemingly real or physical way.**
- A Artificial Intelligence
  - B Augmented Reality
  - C Blockchain
  - D Virtual Reality (1)
- 2.6 **It creates three-dimensional solid objects from a digital model.**
- A Multifunction printer
  - B Deskjet printer
  - C Laser printer
  - D 3D-printer (1)
- 2.7 **Examples of video conferencing apps:**
- A Office365
  - B Google Meet
  - C Photoshop
  - D TikTok (1)
- 2.8 **A standard used in wireless communication which provides for latest high-speed data transfers between cellular devices and ISPs.**
- A ISDN
  - B LTE
  - C 3G
  - D ADSL (1)
- 2.9 **Which ONE of the following is NOT a feature of a database program?**
- A Sort
  - B Filter
  - C Citation
  - D Grouping (1)

2.10 The spreadsheet function NOW will always display the following:

- A current date-time formatted as date and time.
- B Excel code for hh mm ss formatted as time.
- C date on which the spreadsheet is opened.
- D date and time on which the function was entered.

(1)

[10]

### QUESTION 3: TRUE/FALSE ITEMS

Indicate whether the following statements are TRUE or FALSE. Choose the answer and write 'true' or 'false' next to the question number (3.1-3.5) in the ANSWER BOOK. Correct the statement if it is FALSE. Change the underlined word(s) to make the statement TRUE. (You may not simply use the word 'NOT' to change the statement.)

#### EXAMPLES:

QUESTION	ANSWER
Computer program instructions are executed by the <u>CPU</u> .	True
Dot matrix, inkjet and laser are types of <u>keyboards</u> .	False - printers

- 3.1 A form is a database object used to present a summary of data in a printable format. (1)
- 3.2 A Trojan is a software program that allows the operating system to communicate with a hardware device. (1)
- 3.3 An attachment is a file that can be sent together with an e-mail message (1)
- 3.4 Instant messaging platforms often use encryption to protect user data. (1)
- 3.5 The defragment utility program can be used to delete temporary or unused files. (1)

[5]

## SECTION B

### QUESTION 4: SYSTEM TECHNOLOGY

- 4.1 How does an open-source operating system, such as Linux, differ from an enterprise operating system, such as Windows? (2)
- 4.2 State TWO advantages of using a micro USB port instead of the standard USB port on a smartphone. (2)
- 4.3 When switching on your computer, you find that there is no display on the screen. Other than a faulty screen, discuss TWO reasons why there is no display. (2)
- 4.4 The user cannot see the full text while an e-mail is being typed on a touch screen device. Give TWO reasons why this happens. (2)
- 4.5 The following system requirements are needed to install an office suite:

- 1 GHz or faster CPU
- 2 GB or more RAM
- 3 GB of available disk space
- 1024x768 or higher
- Windows 7 or later

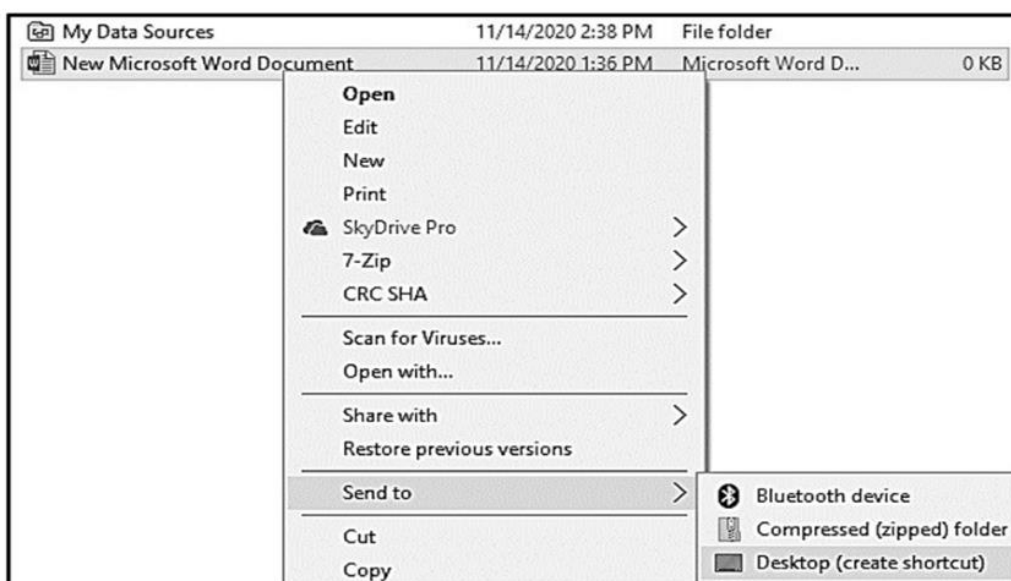
Explain why it is INCORRECT to say that 1024x768 is the size of the monitor.

(1)

- 4.6 Explain how convergence contributes to green computing (2)
- 4.7 Study the notebook computer (laptop) specifications in the advertisement below and answer the questions that follow.

Intel Core i5  
 15.6" screen (1920 x 1080)  
 128 GB SSD  
 3 x USB ports  
 VGA port  
 Webcam with microphone  
 802.11 b/g/n  
 SD card reader  
 6-cell battery  
 Office 365 (1-year licence)

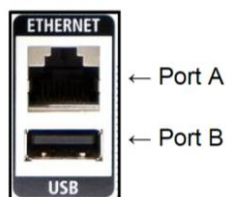
- 4.7.1 Give ONE feature of a USB port that makes it such a popular choice for connecting peripherals. (1)
- 4.7.2 Give ONE reason why newer models of notebook computers do not have optical drives. (1)
- 4.7.3 Name an essential specification affecting performance that is NOT listed in this advertisement. (1)
- 4.7.4 What is the size of the permanent storage in this computer? (1)
- 4.8 State TWO benefits of using online banking as opposed to physically visiting a bank. (2)
- 4.9 A printer does not print the document sent to it, even though it is working, switched on and properly connected. (2)
- Discuss TWO ways in which to resolve this problem
- 4.10 A hard disk analysis shows that the drive is almost full. (2)
- Name TWO problems that may occur when the hard disk drive is full.
- 4.11 Give TWO functions of a web browser, other than the ability to view web pages. (2)
- 4.12 A user tries to save a word processing document on the Desktop by performing the action as shown in the screenshot below. (2)
- Give the reason why the user is NOT successful AND give a solution to this problem.



[25]

## QUESTION 5: NETWORK AND INTERNET TECHNOLOGIES

- 5.1 State TWO limitations of a wired LAN when compared to a wireless LAN. (2)
- 5.2 How do clients benefit when their internet connection is shaped by an ISP? (Do NOT refer to cost in your answer.) (1)
- 5.3 Study the image below and answer the questions that follow.



- 5.3.1 Which port should a person use to connect a computer to a wired network? (1)
- 5.3.2 Explain how to connect a computer to a wireless network using one of the ports (2)
- 5.4 Why does a video freeze (buffer) from time to time while streaming it from the internet? (1)
- 5.5 Name the technology used by banks and also the creators of ransomware to secure the exchange of information over the internet. (1)
- 5.6 What is the main purpose of an ISP? (1)
- 5.7 State TWO functions of a router as used in a home network. (2)
- 5.8 Many public places often offer free internet access.
- 5.8.1 What is this type of connection called? (1)
- 5.8.2 State ONE problem with this kind of free internet connection, other than security risks. (1)
- 5.9 Suggest TWO changes that would make the following password more secure, without changing the length of the password: (2)

1b00f70e

[15]

## QUESTION 6: INFORMATION MANAGEMENT

- 6.1 Explain TWO ways in which a teacher can find out whether learners are guilty of plagiarism in their PATs. (2)
- 6.2 Give TWO advantages of using drop-down form fields in an electronic questionnaire. (2)
- 6.3 Give TWO reasons why a task definition is necessary when planning the research for your practical assessment task (PAT). (2)
- 6.4 Give TWO benefits for a researcher when closed questions are answered electronically. (2)
- 6.5 Refer to a formal written report, such as your PAT, and explain the purpose of an:
- 6.5.1 Abstract (1)
- 6.5.2 Introduction (1)

[10]

## QUESTION 7: SOCIAL IMPLICATIONS

- 7.1 State TWO strategies that learners could use to discourage cyberbullying. (2)
- 7.2 Discuss TWO negative implications for a company when employees do private tasks on company computers during working hours. (2)
- 7.3 Driverless cars/Self-driving cars may become more common in the future. Use your knowledge of computers to discuss TWO potential problems that could be associated with driverless cars/self-driving cars. (2)

- 7.4 Suggest TWO ways in which computer users can prevent RSI to their hands and wrists. (2)
- 7.5 Give TWO signs that may warn you that someone may have an internet or gaming addiction. (2)
- [10]**

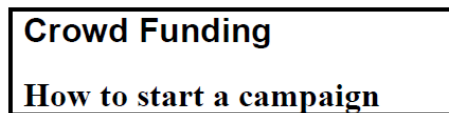
**QUESTION 8: SOLUTION DEVELOPMENT**

- 8.1 The function =MAX(D2:D5) was entered into a cell. Why would the text '=MAX(D2:D5)' display in the cell instead of the required result of the function, e.g. 25? (1)
- 8.2 A website was designed using the following code:

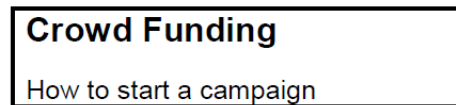
```

<html>
  <head>
    <title>Fund-raising</title>
  </head>
  <body>
    <h1>< font style="Arial">Crowd Funding</font>
      <p> How to start a campaign</p>
    </body>
  </html>
```

There are errors in the code, and the web page actually displays as follows:



The designer wanted the code to display as follows:



- 8.2.1 Suggest a change to the code so that all the text in the body section will display in Arial font. (1)
- 8.2.2 Suggest a change to the code so that the text 'How to start a campaign' will NOT appear formatted as a heading. (1)
- 8.2.3 Where will the text 'Fund-raising' appear when the page is displayed in a browser? (1)
- 8.3 A database contains the surnames and names of learners. The following criterion appears in the Surname field as a database query:  
**"Like Smi\*"**
- 8.3.1 Give the term used to describe the asterisk (\*) when used in the criterion. (1)
- 8.3.2 Give the purpose of using the asterisk in the query. (1)
- 8.4 You try to open a particular word processing file, which you know you definitely saved on your computer. Explain why this file does not appear in the list, when you browse for the file. (1)
- 8.5 You wish to paste a graph from a spreadsheet into a word processing document. Which Paste Special option would you use to enable the graph in the word processing document to update when the data in the spreadsheet changes? (1)
- 8.6 You typed the word 'text', but ♦ ™ ☒ ♦ appeared. How do you ensure that the word 'text' is displayed instead of the symbols? (1)

- 8.7 What must you do before you can insert an automated citation in a word processing document? (1)
- 8.8 Consider the formula = [Price]\*[Markup], used in a calculation in a database query or report.  
Why are square brackets used in this formula? (1)
- 8.9 Study the screenshot below. The formula used in cell D3 to obtain the time worked is correct, although it is not displaying the correct answer.

	A	B	C	D	E
1					
2		Time in	Time out	Time worked	
3		11:00	13:00	12:00:00 AM	
4					

- What cell formatting must be applied to cell D3 to obtain the correct answer of 2 hours? (1)
- 8.10 Give ONE benefit of using styles for headings in a long word processing document. (1)
- 8.11 How would you use the Page Break Preview of a spreadsheet to manipulate the number of rows or columns printed per page? (2)
- [15]**

## SECTION C

### QUESTION 9: INTEGRATED SCENARIO

ICT technologies and equipment are increasingly used in schools. You are asked the following questions of how it is implemented in your school.

- 9.1 The principal at your school suggests that an electronic tablet is used to record the data of people entering the school.
- 9.1.1 Give TWO reasons why you agree with the principal that a tablet would be better than a laptop computer for this purpose. (2)
- 9.1.2 Give TWO specifications/features of a tablet that you would look for when buying a tablet for this purpose. (2)
- 9.1.3 State TWO ways in which to extend the storage space of the tablet. (2)
- 9.2 Give TWO reasons for making a cloud backup of the data. (2)
- 9.3 You will use the mail merge feature of the word processor to send the report to other teachers.  
State TWO advantages of using the mail merge feature to create personalised e-mail messages. (2)
- 9.4 Fake news is being distributed daily.
- 9.4.1 Explain ONE way in which the creators of fake information make the information seem real or believable. (1)
- 9.4.2 State TWO ways in which learners can avoid being fooled into believing fake information. (2)
- 9.5 Your Grade 12 class is arranging a movie night as a fundraiser for your school. You need to assist with the arrangements.

- 9.5.1 You will require a notebook computer and a data projector to show the movies in the school hall.  
Name TWO features, other than the resolution, that you will consider when buying a data projector. (2)
- 9.5.2 Explain why it will NOT be necessary for the notebook computer to have a dedicated graphics card for showing movies. (1)
- 9.5.3 Identify ONE risk that your notebook computer could be exposed to by being connected to the internet AND suggest a way to prevent harm from the risk that you identify. (2)
- 9.6 Your school has a learning centre for academic support programs.
- 9.6.1 State TWO ways in which the school could ensure that the computing devices in the learning centre use less electricity. (2)
- 9.6.2 One of the governing body members suggests that they buy a UPS.  
What is the function of a UPS? (1)
- 9.6.3 Why would a UPS not help to save electricity? (1)
- 9.7 The centre administrator is responsible for the maintenance of the software in the learning centre.
- 9.7.1 What is the purpose of a patch? (1)
- 9.7.2 Which system software utility program can help the administrator to improve the overall system performance of each computer? (1)
- 9.8 The data from an electronic form was exported to a spreadsheet.  
The organisers wish to determine how many parents gave a rating of more than 7 for all three criteria, i.e. Movie rating, Venue rating and Catering rating.  
Study the screenshot below and explain why the COUNTIF function shown in the address bar of cell E2 does not give the correct answer of 11 people who were satisfied. (2)

E2					
	A	B	C	D	E
	<b>ParentID</b>	<b>Movie rating</b>	<b>Venue rating</b>	<b>Catering rating</b>	<b>Number of people satisfied</b>
1					
2	G11FC601	8	5	10	12
3	G9AS409	10	10	5	
4	G9GL758	6	9	9	
5	G11GW985	2	3	7	
6	G8KT591	9	10	9	
7	G12DA376	8	1	2	
8	G11DC934	8	6	3	

[26]

### QUESTION 10: INTEGRATED SCENARIO

ICT devices and technologies are sometimes used at functions at the school.

- 10.1 ICTs allow for teaching and learning to continue when learners are not at school.
- 10.1.1 Name TWO kinds of electronic resources that teachers can share with learners. (2)
- 10.1.2 Name TWO word-processing features that teachers can use to give the learners feedback on their work. (2)

- 10.2 The school uses a database to keep track of the sponsors and the donated devices.
- 10.2.1 Give ONE reason why a database is more suitable than a spreadsheet to store information of donated items. (1)
- 10.2.2 A spreadsheet graph will be used to indicate the value of the devices donated by each sponsor.  
How would you create this graph without having to retype the data from the database into the spreadsheet? (1)
- 10.2.3 Explain how the graph could be saved as a picture. (1)
- 10.3 The school is hosting an event at the school and guests will take photographs with their smartphones.
- 10.3.1 Photographs will be transferred from the guests' smartphones to a notebook computer using Bluetooth.  
State TWO advantages of transferring the photographs wirelessly from the smartphones to a notebook computer instead of using a USB cable to transfer the photographs. (2)
- 10.3.2 All the photographs of the reunion will be included in a PowerPoint presentation.  
What can you do to reduce the file size of the PowerPoint presentation without compressing it? (1)
- 10.3.3 The PowerPoint presentation will be uploaded to the cloud.  
How can this presentation be made available to former learners who do not have access to the internet? (1)
- 10.4 The school must buy a printer for office use. Name TWO specifications to consider when purchasing a printer, other than cost. (2)
- 10.5 Suggest TWO environmentally friendly ways in which to dispose of a damaged computer. (2)
- 10.6 Strict security measures should be put in place by the network administrator so that not all employees have access to the server of the school.
- 10.6.1 Give TWO reasons why physical access to the server room should be restricted as well. (2)
- 10.6.2 Give TWO reasons why the network administrator disabled the unused USB ports on the employees' computers. (2)
- 10.6.3 Give TWO reasons why the network administrator may not want an operating system to automatically download and install updates on the networked computers. (2)
- 10.7 Suggest TWO guidelines to be included in the ICT policy for making backups. (2)
- 10.8 Why do many smartphones have a front-facing camera in addition to a rear camera? (1)
- [24]**

## Practical Section

### QUESTION 1: WORD PROCESSING

#### SCENARIO

The oversharing of social media by the Information industry as well as individuals can be a danger to people, their children, and their companies.

Open the **1Oversharing** word processing document, which is a report written by Brian Pinnock, a cybersecurity expert at Mimecast.

1.1 Make the following changes to the heading, 'Social media oversharing can be a danger to people':

1.1.1 Change the font of the text to small caps and the font size to 16 pt (2)

1.1.2 Format the heading to display as follows: (1)



SOCIAL MEDIA OVERSHARING CAN BE A DANGER TO PEOPLE.

By Brian Pinnock

1.2 Find the name 'Brian Pinnock' above the picture on the first page. (3)

- Insert a footnote on 'Pinnock'.
- Use custom mark Character code 167.
- The footnote should display as follows:

---

\* cybersecurity expert

1.3 Make the necessary changes to the picture on the first page to display it as follows: (3)

*Posting intimate details of our personal and professional online gives cybercriminals valuable information. (Avishek Das/SOPA Images/LightRocket via Getty Images)*

Is our propensity for sharing every detail of our lives — and the lives of our children — putting ourselves, our friends and family and even our employers and colleagues at risk?

There is a growing consensus among cybersecurity specialists that the information we freely share to the likes of



1.4 Modify the layout of the style 'Sharing' as follows: (2)

- Change the paragraph spacing before to 10 pt,
- Update all occurrences of the style to reflect the change.

1.5 Find the text that starts with 'There is a growing consensus ' and ends with 'obtain elsewhere' and make the following changes: (3)

- Justify the text.
- Set the paragraph spacing after at 6 pt.
- Set the line spacing to multiple at 1.3.

- 1.6 Find the heading 'Weaponising our personal data' on page 1. (1)  
 Edit the hyperlink on the red text in the first line under the heading to only point to the website <https://www.verizon.com>.
- 1.7 Find the citation in the second paragraph under the heading 'Sharenting' poses additional risks': (2)
- Change the author of the source, Mail and Guardian, to Brian Pinnock.
  - Display only the author in the citation.
- 1.8 Find the numbered list towards the end of the document. (3)  
 Change the numbered list to a bulleted list as follows:
- use Webdings ☀️ (Character code 230) as the bullet symbol;
  - Place the bullets at 1 cm from the margin and the text 0.8 cm from the bullet.
  - Use a word processing feature to ensure that the paragraph before the list will not be separated from the list if it stretches over two pages.
- 1.9 Find the orange arrow above the Bibliography: (2)  
 Insert a link on the arrow so that when it is clicked it will take the user back to the top of the document.
- 1.10 Insert an automatic generated bibliography on the last page under the heading Bibliography. (1)  
 Save and close the **1Oversharing**-document. [23]

## QUESTION 2: WORD PROCESSING

One of the top 25 YouTube Influencers were profiled to determine his net worth.

Open the **2PewDP** word processing document that is based on his earnings and edit the document as follows.

- 2.1 Information of the author is found in the alternative text of the picture on page one. Copy the relevant details to the author property of the document. (1)
- 2.2 Make the necessary changes to the footnote on the main heading on page one so that the note displays on the last page of the document. (1)
- 2.3 Edit the picture to ensure that it displays and reads correctly. (1)
- 2.4 Change the capital A in the first paragraph to a dropped cap. (1)
- 2.5 Find the text "troubled" in the first paragraph and replace it with any synonym from the list provided in the Thesaurus. (1)
- 2.6 Find the text starting with "Net Worth ... and ending with ...2023". Convert the text to a table consisting of two columns with a fixed width of 8 cm each. (3)
- 2.7 Locate the second paragraph containing track changes under the heading "PewDP Proves ..... good living online". Use a word processing feature to keep the deleted text and stop all the tracking. (2)
- 2.8 PewDP's latest YouTube videos with the number of views and comments are listed in a table that spans over two pages. Edit the table as follows:
- 2.8.1 Use a table feature to ensure that the top two heading rows will display on the second and subsequent pages as well. (2)
- 2.8.2 Insert a function in the yellow shaded cell to calculate the highest number of views. (2)

- 2.9 A calculator table was created to determine the amount earned for YouTube views. Edit the calculator as follows:
- 2.9.1 Separate "The **YouTube Money Calculator**" from the rest of the table to appear as a table on its own. (1)
  - 2.9.2 Add the video "Saying Goodbye is Hard", found in the "Recently Published Videos" table, to the dropdown list of videos. (1)
  - 2.9.3 Find the text form field control that has been added to the last cell. Edit the data type of the control to enable a user to display the total of amounts. (1)
- 2.10 Insert automatic page numbering in the footer in the format X of Y. (2)
- Save and close the **2PewDP** document. [19]

### QUESTION 3: SPREADSHEET

#### NOTE:

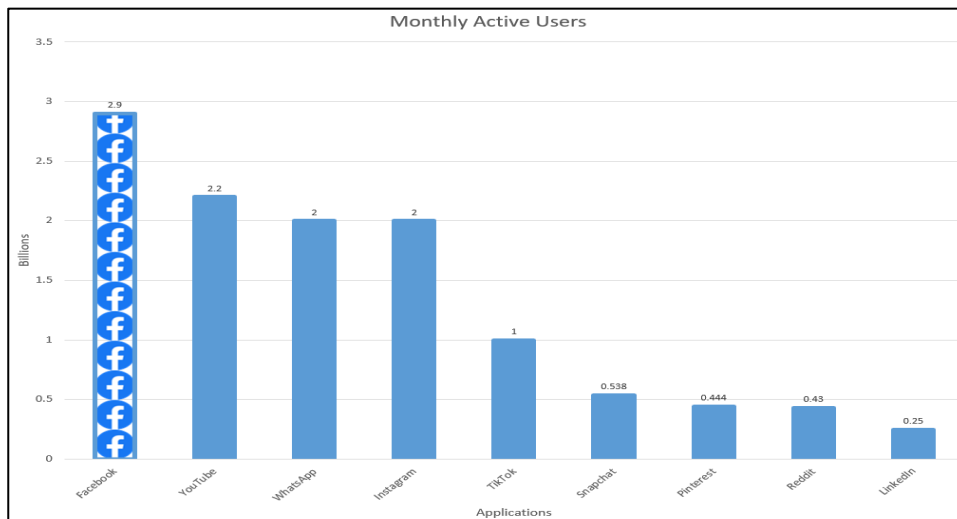
- Use formulae and/or functions for ALL calculations in the spreadsheet.
- Use absolute cell references ONLY where necessary to ensure that formulae are correct when you copy them to other cells in the same column (copy down).
- Insert formulae and/or functions in such a manner that the correct results will still be obtained even if the existing data changes.
- Should you need to use building blocks, use the allocated space in the spreadsheet.

Open the **3UsersGebruikers** spreadsheet, which contains data about social media users. Work in the **UserDetails** worksheet.

- 3.1 Format **cell A2** to appear the same as **cell A1**. (1)
- 3.2 Change the height of **row 3** to 15 pt. (1)
- 3.3 Format all the headings in **row 7** so that they are horizontally and vertically centred. (1)
- 3.4 Use conditional formatting in **column E** to fill the cell background with any colour of your choice, if the sponsored amount in **column D** is more than R1000. (4)
- 3.5 Insert a function in **cell C4** to determine the longest duration of contracts in **column G**. (1)
- 3.6 Insert a function in **cell C5** to determine the average amount received per user in **column D**. Round down this amount to the nearest rand. (3)
- 3.7 The starting date of the sponsorship contract is indicated in **column H** and the duration of the contract in months is indicated in **column G**.  
Use the date function already inserted in **cell I8** and make the necessary changes to it to determine the end date of the contract for Marilyn Suggitt. (1)
- 3.8 The Applications worksheet stores the code that is allocated to users that make use of a specific application.  
Insert a VLOOKUP function in **cell J8** to determine which application Marilyn Suggitt uses. Use the user code AND the table in the Applications worksheet. (4)

Work in the **Graph** worksheet.

3.9 Format the chart/graph to display as shown below.



**NOTE:**

- Stacked fill effect for Facebook column using the **3facebook** image stored in the examination folder.
- Twitter column removed from graph, without removing the data from the original sheet.
- The axis titles.
- Data labels.
- The text direction on the horizontal axis.

(5)

Save and close the **3UsersGebruikers** spreadsheet.

[21]

### QUESTION 4: SPREADSHEET

**NOTE:**

- Use formulae and/or functions for ALL calculations in the spreadsheet.
- Use absolute cell references ONLY where necessary to ensure that formulae are correct when you copy them to other cells in the same column (copy down).
- Insert formulae and/or functions in such a manner that the correct results will still be obtained even if the existing data changes.
- Should you need to use building blocks, use the allocated space in the spreadsheet.

A spreadsheet **4GameSpeel** containing the score and subscription of online gamers has been created by the chairman of the online gaming club. He asks your help to complete it.

Open the spreadsheet to complete the following:

- 4.1 Remove the option "black" in the data validation options for all the cells in **column I**. (1)
- 4.2 Use a SUMIFS function in **cell H191** to calculate the total score of female players from the Western Cape (WC). (5)
- 4.3 Column G contains a code for each gamer that is compiled as follows:
  - Initials (column B) and surname (column C) of the gamer
  - The province (column F)
  - The gender of the gamer in small letters (column H)
  - The first letter of game colour (column I.)
  - Only the year of birth (column D).

Tami Aileen's code in **cell G7** is incomplete.

Carefully examine the function that has been inserted in the cell and then adjust and add to it to complete his code according to the requirements above. (4)

4.4 Discount on subscriptions is calculated according to the age of the gamer.

- Gamers older than 50 years get a discount of 10%
- Gamers between 25 and 50 get a discount of 5%
- No discount is given to gamers younger than 25.

The subscription amount is found in **N1**.

An attempt has been made to calculate the discount in **cell N3** for the first gamer, but the function does not display the correct answer.

Change the function to a **nested IF statement** to make provision for all three conditions above.

An empty cell must be displayed if a gamer is younger than 25, but the discounted amount must be displayed for gamers 25 and older.

Fill the function down to the remaining cells in the column. (6)

4.5 Use a combination of functions in **cell O3** to determine the bonus points allocated to Claudius Abbot.

Bonus points are calculated by using a function to determine the highest score out of the three rounds (column J to column L) and dividing the answer by a number between 5 and 10 that is automatically generated by a function.

**HINT:** You may use building blocks. (4)

Save and close the **4GameSpeel** spreadsheet. [20]

## QUESTION 5: DATABASE

A database was created about the preferred social media platforms used.

Open the database **5SocialMedia**

5.1 Open **tbl5\_1** table in Design View:

5.1.1 Change the field size for the *Surname* field to an appropriate size. (1)

5.1.2 Create an input mask for the *Participant\_Code* in the following format:

TWO compulsory digits, followed by

The "&" sign, followed by

TWO capital letters. (4)

5.1.3 Change the data type of the *WIFI* field so that the user can insert a tick if Wifi is available. (1)

5.1.4 Edit the field properties of the *Favourite\_Social\_Media* field to display the options of the different types of social media listed in the *Social\_Media* table in alphabetical order.

Change a property of the field, to prevent the user from adding their own values. (4)

5.1.5 Create a validation rule for the *Hours\_per\_day* field to match the validation text. (2)

Save and close **tbl5\_1**.

- 5.2 Open the form called **frm5\_2** based on the **tblData** table in Design View. Modify the form to display as shown in the example below.

**Note:**

- How the picture fit the frame,
- The datatype for the field *MoneySpent*,
- The control button,
- The arrangement of the fields.

(5)

- 5.3 Open the **qry5\_3** query in Design View.

Modify the query to display only the names and surnames of all the females whose first choice of social media is Facebook.

(3)

- 5.4 Create a query called **qry5\_4** based on the **tblData**. The query has to display the following results.

SocialMedia_1	CountOfSocialMedia_1
Facebook	21
Instagram	13
Pinterest	14
Tiktok	17
Twitter	12
WhatsApp	23

(3)

- 5.5 Open the query **qry5\_5** in Design view and do the following:

- Sort the *Hours* field to display the highest number first.
- Insert a calculated field called *Price2023* to determine the increased price of the packages, by keeping the following in mind:
  - Data packages of R150 and more increased by 12%.
  - Format the increased price to display in currency.

(6)

- 5.6 Open the report **rpt5\_6** based on the **ReportData** query and modify it as follows:
- Remove the **Gender** label and field,
  - Group the report on **SocialMedia\_1**,
  - Insert a function and suitable label to determine the average money spent on data for each type of social media,
  - Format the amount to display only 2 decimals.

Save and close the **rpt5\_6** report.

(6)

Save and close the **5SocialMedia** database.

[35]

## QUESTION 6: WEB DESIGN (HTML)

### NOTE:

- You may NOT use a word-processing program such as Word to answer the HTML questions.
- An HTML tag sheet has been attached for reference.
- All files needed to complete this question are found in the examination folder.
- Question numbers appear as comments in the coding to guide you where to insert the answer(s). DO NOT delete these comments.

6.1 Open the incomplete **6\_1Media.html** file in a web browser and in a text/HTML editor.

6.1.1 Edit the code so that the text "Social Media" appears in the browser tab.

(1)

6.1.2 Locate the text "Importance of Social Media in today's world" in the first paragraph. Apply a heading style to it that will display the heading in a larger font than the rest of the text.

(1)

6.1.3 Locate the subtitle "Entertainment" and the paragraph below it, and edit the paragraph to display as the screenshot below (ignore the border):

**Entertainment**

There is so much more to social media than just work, communication and branding. Social media platforms provide tired individuals with customized feeds consisting of memes, news, and short clips of videos as per the user's activity.

### NOTE:

- The font is Comic Sans MS
- The font is red.
- The text formatting applied.

(5)

6.1.4 Apply numbering to the items below the heading "Benefits of Social Media:" so that they appear as:

## Benefits of Social Media

- a. Direct Contact with Target Audience
- b. Increasing Popularity with Ease
- c. Better Traffic
- d. Create a Lasting Image

By Simplilearn

(2)

6.2 Open the incomplete **6\_2Table.html** file in a web browser and in a text/HTML editor. Complete the table in the web page to look exactly as shown in the example below.

Social Media Platform		Users
Tik Tok		Teenagers
Facebook		Influencers
LinkedIn		Professionals

**NOTE:**

- Space between cells is 10 pt.
- The position of the picture.
- Partially sighted or blind users should be assisted when a screen reader reads the text “Social Media and users” aloud. (5)

Save and close the **6\_2Table** file.

ONE mark will be allocated for the correct use of **closing tags, nesting and triangular brackets** in both questions. (1) [15]

**QUESTION 7: GENERAL**

Global research on social media and information on influencers has been incorporated into documents.

7.1 The document **7GlobalStats** contains statistics about the use of social media. Open the **7GlobalStats** word processing document and prepare the research by doing the following:

7.1.1 Insert the picture **7GlobalStats** into the **7StatsReport** under the heading ‘Essential digital stats for April 2023’.

- Edit the picture according to the instructions in the comment.

Save but do **not** close the document. (3)

7.1.2 Open the **7Info** spreadsheet. Work on the *Graph* sheet.

- Copy the graph and use Paste Special to paste it as a link at the bottom of the **7GlobalStats** document. (2)

7.1.3 Continue working in **7Info** spreadsheet on the *Name* sheet:

- Apply a named range to **A2 to F10**. Name the range **CI**. (2)

Save and close **7GlobalStats** and **7Info**.

7.2 Open the database **7Influencers** and do the following:

7.2.1 Use a database feature to **add** the records from the *ADD* sheet in the **7Info** spreadsheet to the *Type* table. **Do not** create a second table. (2)

7.2.2 Open **frmType** to do the following:

- Create a validation rule in the *StartDateBeginDatum* field to enter only dates since the start of 2018. (2)

- Use conditional formatting in the *AmountBedrag* field to compare the values. Display a green bar together with the value to indicate the comparison. (3)
  - Calculate the total amount all influencers in the database have earned by inserting an appropriate function and label in the footer of the form. (3)
- [17]**