**Your name:**

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| **INTRODUCTORY COMPUTER PRACTICE** | | |
| **Student checklist** | | |
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| **You should now be able to do the following:** | | **I can do this**  **✓** |
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| **Topic 1: Computing concepts and application skills** | |  |
| **1.1** | **Introduction to computing concepts and systems technologies** |  |
| 1.1.1 | Define the term ICT |  |
| 1.1.2 | Discuss the role computers play in modern society |  |
| 1.1.3 | Explain how ICTs facilitate everyday business operations |  |
| 1.1.4 | Discuss examples of computer usage and applications as part of society. |  |
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| **1.2** | **Explain what a personal computer is and how it is used** |  |
| 1.2.1 | Describe the concept personal computer in terms of hardware, software, memory, storage. |  |
| 1.2.2 | Differentiate between various types and forms of computers in terms of their use and purpose within an office environment |  |
| 1.2.3 | Differentiate between hardware and software |  |
| 1.2.4 | Describe the basic purpose of hardware |  |
| 1.2.5 | Differentiate between different types of hardware with examples |  |
| 1.2.6 | Describe the basic purpose of software |  |
| 1.2.7 | Differentiate between different types of software with examples |  |
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| **1.3** | **Introduction to systems technologies and the information processing cycle** |  |
| 1.3.1 | Define the following terms: Information processing, Information processing cycle |  |
| 1.3.2 | Explain how the concepts of information processing and the information processing cycle are related |  |
| 1.3.3 | Draw a basic model of an information processing device |  |
| 1.3.4 | Define the terms: Input, Output and Processing |  |
| 1.3.5 | Explain the purpose of storage |  |
| 1.3.6 | Name the various components required and utilised for I/O, storage and processing  Range:  RAM, ROM, secondary and primary storage, CPU,Digital communication mediums |  |
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| **1.4** | **Basic concepts of systems and application software** |  |
| 1.4.1 | Differentiate between: Systems and Application software |  |
| 1.4.2 | List examples of different types of systems and application software |  |
| 1.4.3 | Explain the role of the Operating System (OS) |  |
| 1.4.4 | Explain the role of the OS as an interface between the user and the computer |  |
| 1.4.5 | Explain the necessity of the various operations and functions that an OS provide a user |  |
| 1.4.6 | List examples of different utility software and their purpose (including anti-virus software) |  |
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| **1.5** | **Starting up and shutting down an operating system, Windows 10** |  |
| 1.5.1 | Describe the concept of starting and operating system. (This also include the concept of bootstrapping) |  |
| 1.5.2 | Start an operating system, and log on (Also relates to the concept of why the necessity exist to log into an operating system) |  |
| 1.5.3 | Describe the concept of logging off or placing a computer in sleep mode |  |
| 1.5.4 | Describe the concept of restarting a computer using an appropriate routine |  |
| 1.5.5 | Shut down or restart a computer |  |
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| **1.6** | **Explore and use the Operating System (OS), Windows 10** |  |
| 1.6.1 | Identify and name components of the Operating System (OS) desktop |  |
| 1.6.2 | Outline the purpose of the desktop and the taskbar |  |
| 1.6.3 | Use the start button on the taskbar to gain access to other functions of the Operating System (OS). |  |
| 1.6.4 | Identify common icons and discuss their meaning, such as: file icons, folder icons, drive icons, peripheral device icons, shortcuts, recycle bin, applications |  |
| 1.6.5 | Open different windows |  |
| 1.6.6 | Use two programs simultaneously in Windows and switch between the two |  |
| 1.6.7 | Identify the content of disks and folders in the content panel of File Explorer (called Windows Explorer in Windows 7) |  |
| 1.6.8 | Identify the file types correctly according to their extensions |  |
| 1.6.9 | Perform basic file management operations:  Range:  Create and manage folders, Move files and folders  Select multiple or single files  Name and rename files (including rules and conventions)  Perform basic search functions, Digital communication mediums |  |
| 1.6.10 | Use the Help function to solve problems |  |
| 1.6.11 | Use available utility software  Range: Calculator, Paint, Snipping tool |  |
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| **1.7** | **Using input and pointing devices** |  |
| 1.7.1 | Differentiate between a keyboard and a mouse and input devices |  |
| 1.7.2 | Demonstrate the correct typing posture and positioning of fingers, wrists, fore-arms and back to facilitate touch typing |  |
| 1.7.3 | Demonstrate proficiency in using a keyboard  Range:  Introduction to the keyboard and the various frequently used keys  Top row, Bottom row, Combination  Introduction to other keys; Shift, Caps Lock, Insert, Delete, Backspace, Page up, Page down, Home, End, Tab, Print screen  Speed and accuracy drills, Random, Basic common short cuts  Speed and accuracy drills |  |
| 1.7.4 | Identify the different sections on a keyboard (alphabetical, numerical function keys)  Range:  Able to type home row (asdfgh;lkj), Able to save a document.  Understand the correct use of the <Enter> key (word wrap)  Able to type top row (qwertyuiop) and home row  Identify the different sections on a keyboard (alphabetical, numerical function keys)  Able to type a combination of short words and sentences |  |
| 1.7.5 | Demonstrate proficiency in using a pointing device (mouse)  Range:  Understand the different functions of a mouse (right click, left click, scroll)  Learn How to drag the cursor, double click, click to select  Develop fine motor skills to better control the mouse  (Common Sense Education, 2019) |  |
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| **1.8** | **Introduction to Word Processing** |  |
| 1.8.1 | Define the term Word Processing |  |
| 1.8.2 | List examples of different word processing applications |  |
| 1.8.3 | Explain why word processing software are used |  |
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| **1.9** | **Starting a word processing application** |  |
| 1.9.1 | Open/Start a Word processor |  |
| 1.9.2 | Explore common features of the Ribbon tabs, Quick Access Toolbar, File tab, Menus |  |
| 1.9.3 | Create and save a new blank document |  |
| 1.9.4 | Open/retrieve an existing document |  |
| 1.9.5 | Switch between different documents |  |
| 1.9.6 | Create a document based on a template |  |
| 1.9.7 | Describe the concept and purpose of templates |  |
| 1.9.8 | Export/Save a document in another format  Range: Previous version, rtf, pdf, txt |  |
| 1.9.9 | Change the default folder for saving documents |  |
| 1.9.10 | Use the Help functions provided |  |
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| **1.10** | **Keyboarding and keyboard proficiency in a document** |  |
| 1.10.1 | Use other keys and combinations thereof on the keyboard such as Shift, Caps Lock, Insert, Delete, Backspace, Page up, Page down, Home, End, Tab, Print screen |  |
| 1.10.2 | Identify and use a number of keys and explore their effects in a Word document  Range: Alphabetical keys, number keys/num lock, Caps Lock, Enter, Backspace, Delete, Spacebar, Shift, Tab, Ctrl + Alt, Delete and F keys |  |
| 1.10.3 | Practise using these keys to create and edit a text document, for example using the Tab key for indenting |  |
| 1.10.4 | Revise alphabetical keys |  |
| 1.10.5 | Type special characters, symbols and punctuation marks available on the keyboard. (! @ # $ % ^ & \* ? < >) |  |
| 1.10.6 | Use basic features to edit a Word document  Range: Move around in it; type in it (INS); delete text; start a new  Select data using keyboard and/or mouse, entering, editing and deleting text  Basic punctuation - one space after all punctuation, including periods, formatting marks |  |
| 1.10.7 | Describe the GIGO (Garbage In Garbage Out) principle using a word processor document |  |
| 1.10.8 | Demonstrate the use of common shortcuts for editing text, for example  Ctrl +B, Ctrl +I, Ctrl +U, Ctrl +Z and Ctrl + Enter |  |
| 1.10.9 | Ctrl + C (copy), Ctrl + X (cut), Ctrl + V (paste) |  |
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| **1.11** | **Reinforce practical keyboarding and typing skills within a word processor** |  |
| 1.11.1 | Type 10-minute speed tests |  |
| 1.11.2 | Type revision, remedial and drill exercises |  |
| 1.11.3 | Reinforce the concepts mastered as part of LO 1.10  Type speed building exercises (using a typing tutor) |  |
| 1.11.4 | Touch type with confidence:  Range: Alphabetic keys, numeric keys (numeric keypad and/or top row numbers) |  |
| 1.11.5 | Apply basic text editing and correction using shortcut keys |  |
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| **1.12** | **Use basic features to create and edit and format a document** |  |
| 1.12.1 | Illustrate the purpose and advantages of using word processing software |  |
| 1.12.2 | Demonstrate the ability to open and save a document |  |
| 1.12.3 | Differentiate between saving and saving as (Save and Save As) |  |
| 1.12.4 | Use basic features to format a Word processor document (font group, use of style group) |  |
| 1.12.5 | Apply basic formatting to a document  Range: Font type, style, size, colour, highlight and effects |  |
| 1.12.6 | Apply Spell/Grammar checking  Printing a document |  |
| 1.12.7 | Use editing functions and shortcuts such as: cut, copy, paste, find and replace, tabular stops, indent |  |
| 1.12.8 | Add or remove bullets numbers in a single level list, switch between standard bullets, numbered lists |  |
| 1.12.9 | Set margins of the document, page or set of pages according to requirements |  |
| 1.12.10 | Select and use page orientation for different purposes |  |
| 1.12.11 | Use a variety of layout and formatting options.  Range:  change line spacing (single, 1.5 and double), change paragraph spacing (before and after), apply paragraph alignment (left, centre, right, justify), increase and decrease indent feature. inserting symbols (basic: caret (ê), acute (é), diaresis (ë), plus-minus (±), etc.  Preference to numbers but exposure to Roman numerals (i, ii, iii) as well as Alphabetical (a, b, c) numbering |  |
| 1.12.12 | Insert pictures and shapes (insert, wrap, sizing) |  |
| 1.12.13 | Export a document to a different format (e.g. pdf) |  |
| 1.12.14 | Capture and insert a screenshot |  |
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| **1.13** | **Spreadsheet basics** |  |
| 1.13.1 | Define the term and purpose of spreadsheet processing |  |
| 1.13.2 | List and describe different uses of spreadsheets (types of documents created) to represent information to users |  |
| 1.13.3 | Open/Start the spreadsheet application, Microsoft Excel 2016 |  |
| 1.13.4 | Explore common features of the Ribbon tabs, Quick Access toolbar, and File tab, Menus |  |
| 1.13.5 | Navigate a workbook |  |
| 1.13.6 | Add a new blank spreadsheet/worksheet to a workbook  Create a new workbook |  |
| 1.13.7 | Create a new spreadsheet/workbook file (called workbook in Excel) based on a template |  |
| 1.13.8 | Open an existing spreadsheet/workbook file (called workbook in Excel) |  |
| 1.13.9 | Export/Save a spreadsheet file (called workbook in Excel) in another format  Range: Previous version, rtf, pdf, txt, csv |  |
| 1.13.10 | Switch between different spreadsheets/worksheets and workbooks |  |
| 1.13.11 | Use the Help function provided |  |
| 1.13.12 | Differentiate and move between a tab sheet, row, column and a cell |  |
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| **1.14** | **Use basic features to create and edit a spreadsheet** |  |
| 1.14.1 | Add content to a cell |  |
| 1.14.2 | Edit content of an existing cell |  |
| 1.14.3 | Use basic features to format a spreadsheet  Range to format text: Highlight text; typing text in bold, italics and underline; typing text in different styles and font sizes; using the alignment functions - left, right, merge & centre; adjust the width of the columns and height of rows and insert borders (horizontal and vertical lines) |  |
| 1.14.4 | Demonstrate the resizing of rows and columns |  |
| 1.14.5 | Use basic features to edit and change information in a spreadsheet  Range of editing: Move around in it; delete text; type in capital letters, insert rows and columns and use Undo and Redo functions  Range of changes: Change the contents of a cell or part of the contents of a cell |  |
| 1.14.6 | List and describe the common types of data that may be entered into a cell |  |
| 1.14.7 | Understand the concept that a cell in a worksheet document refers to only one element of data of a specific type |  |
| 1.14.8 | Understand the concept of a column, row and worksheet and the purpose of each |  |
| 1.14.9 | Explain the purpose of a spreadsheet and the concepts of a cell, row, column and a sheet |  |
| 1.14.10 | Enter data of different types in a cell |  |
| 1.14.11 | Differentiate between different data types and their use to represent data/information  Range: Strings, General, Number, Currency, Date and Time |  |
| 1.14.12 | Decide on common data types such as: General, Number, Currency, Text |  |
| 1.14.13 | Edit the data content of a cell |  |
| 1.14.14 | Select a cell, range of adjacent cells, range of non-adjacent cells, entire worksheet |  |
| 1.14.15 | Understand and apply the concept of a cell reference |  |
| 1.14.16 | Format the content of a cell and change the format of dates and currency, change number formats and decimal settings |  |
| 1.14.17 | Implement good practices in creating lists and tables.  Range: avoid blank rows and columns in the main body of list, insert a blank row before Total row, ensure cells bordering list are blank. |  |
| 1.14.18 | Transfer common features from word processing skills (e.g. copy, paste, save) |  |
| 1.14.19 | Use basic formatting and editing to format cells: wrap, merge, split, alignment, borders, shading, text direction and Auto Fill |  |
| 1.14.20 | Spell check; preview and set print (range or sheet) options and print the document |  |
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| **1.15** | **Use formulas to perform basic calculations in a spreadsheet** |  |
| 1.15.1 | Perform the basic spreadsheet calculations by inserting formulas and using basic operators including +, -, \*, /, |  |
| 1.15.2 | Understand the order of precedence and the use of brackets |  |
| 1.15.3 | Use the Auto Fill tool to repeat formulas and increment data entries |  |
| 1.15.4 | Use basic functions: MIN, MAX, SUM, COUNT and AVERAGE to solve simple problems |  |
| 1.15.5 | Sort data |  |
| 1.15.6 | Identify problems based on the following error indicators: #VALUE, #NAME, #NUM, #REF, #DIV/0, #N/A, ###### |  |
| 1.15.7 | Troubleshoot basic errors in formulas and functions |  |
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| **Topic 2:** **Networks and systems technologies** | |  |
| **2.1** | **Networking concepts** |  |
| 2.1.1 | Define the term network |  |
| 2.1.2 | List and briefly describe common examples of everyday networks |  |
| 2.1.3 | Discuss the advantages and disadvantages of using networks |  |
| 2.1.4 | Describe the basic components and hardware required for network communications |  |
| 2.1.5 | Differentiate between the use, purpose and operation of different types of networking hardware. (Basic overview) |  |
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| **Topic 3:** **Data, information management and computational thinking** | |  |
| **3.1** | **Computational thinking (CT)** |  |
| 3.1.1 | Define the concept CT and its components  Range: Pattern recognition, abstraction, decomposition and possibly algorithms |  |
| 3.1.2 | Apply CT processes within a given problem domain |  |
| 3.1.3 | Focus on the important information only, ignoring irrelevant detail and seeing problems as finite chunks which can be re-used rather than re-built over and over again through abstraction |  |
| 3.1.4 | Place objects/statements/words in a correct order |  |
| 3.1.5 | Use detail to follow certain steps to complete an action |  |
| 3.1.6 | Identify what a pattern is |  |
| 3.1.7 | Look for similarities among and within problems |  |
| 3.1.8 | Interpret a given set of raw data, then recognise the pattern |  |
| 3.1.9 | Make predictions based on patterns |  |
| 3.1.10 | Define the term algorithm |  |
| 3.1.11 | Explain how algorithms are part of our daily lives and processes |  |
| 3.1.12 | Understand what an algorithm is in simple real-life scenarios |  |
| 3.1.13 | Read, understand and explain an existing algorithm |  |
| 3.1.14 | Trace steps in an algorithm |  |
| 3.1.15 | Use the following problem-solving steps and techniques to solve a problem:  Write down the main ideas and requirements of the problem.  Represent the problem by using a diagram, table, flow chart, description or any other method to indicate how you understand the problem |  |
| 3.1.16 | Identify the tools/instruments needed to solve the problem |  |
| 3.1.17 | Plan the detail and sequence the steps |  |
| 3.1.18 | Break down a complex problem or system into smaller, more manageable parts through decomposition |  |
| 3.1.19 | Implement the steps to solve the problem |  |
| 3.1.20 | Reflect on how well you have solved the problem |  |
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| **Topic 4: Internet and communication skills** | |  |
| **4.1** | **Introduction to the Internet and WWW** |  |
| 4.1.1 | Define the term Internet |  |
| 4.1.2 | Describe the term connectivity |  |
| 4.1.3 | Describe the term WWW |  |
| 4.1.4 | Define the terms: web address/uniform resource locater (URL), and describe their purpose |  |
| 4.1.5 | Differentiate between a web page and web site |  |
| 4.1.6 | Explain the purpose of a browser, search engine and other online tools and networks |  |
| 4.1.7 | Identify the different web browsers: Internet Explorer, Chrome, Opera, Firefox and Safari |  |
| 4.1.8 | Work with a web browser |  |
| 4.1.9 | Type in a URL in the address bar and go to a web page (URL) |  |
| 4.1.10 | Describe how a web site is accessed and information obtained (How to access and browse a web site) |  |
| 4.1.11 | Perform a search using a search engine  Range: writing search criteria, evaluating the results |  |
| 4.1.12 | Illustrate an understanding of safe Internet use: passwords, layered authentication, captcha |  |
| 4.1.13 | Explain the reason for information piracy and privacy |  |
| 4.1.14 | Explore and use social electronic media and networks for various communication purposes  Range: Facebook, Twitter, blogs, Skype, WhatsApp, YouTube, etc. |  |
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| **1.14** | **Use basic features to create and edit a spreadsheet** |  |
| **5.1** | **ICT impacts society at large** |  |
| 5.1.1 | Identify areas where ICTs influence one's life and lifestyles |  |
| 5.1.2 | Explain how ICT enhances daily living at home |  |
| 5.1.3 | Describe how ICT enhances and affects society  Range: office practices and education, healthcare, government, engineering, communication in the digital age, news transmission/delivery, video technology, forensics |  |
| 5.1.4 | Explain how mobile technologies affect the emerging world |  |
| 5.1.5 | Describe the concept of ICT related crime (cybercrime) by referring to computer criminals – types and what they do/how they operate |  |
| 5.1.6 | Explain how ICTs impact on the workplace and employment practices  Range: Mobile offices, virtual office, decentralisation of labour, office automation |  |
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| **5.2** | **Impact of the use of ICT on the environment** |  |
| 5.2.1 | Define the term green computing |  |
| 5.2.2 | Define the term e-waste |  |
| 5.2.3 | Discuss how the use of ICT’s impacts the environment with regard to e-waste management and green computing |  |
| 5.2.4 | Explain how the environmental impact of the use of computers could be reduced |  |
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| **5.3** | **Basic concepts of cloud computing and digital presence** |  |
| 5.3.1 | Explain the concept cloud computing |  |
| 5.3.2 | Demonstrate the use of cloud computing with: OneDrive/Dropbox/Google Drive, Google Docs/Google Sheets |  |
| 5.3.4 | Demonstrate an understanding of a search engine (Google) |  |
| 5.3.5 | Demonstrate a knowledge of ICTs in everyday life  Range:  Use of ICTs in real life (shopping, banking and education)  Explain the features/characteristics of online banking and shopping  Demonstrate |  |
| 5.3.6 | Explore the concepts of digital citizenship  Range:  Protect oneself when online, Online harassment  Stalking and bullying, Self-image, Netiquette, Social media safety  Awareness of digital footprint |  |
| 5.3.7 | Demonstrate an understanding of the concepts of: Cyber crime - threats, issues and remedies, identity theft, hacking, phishing |  |
| 5.3.8 | Demonstrate an understanding of what copyright and plagiarism is (software, information, intellectual property) |  |
| 5.3.9 | Differentiate between different types of copyright |  |
| 5.3.10 | Demonstrate an understanding of the purpose of asking for permissions and digital content usage rights |  |
| 5.3.11 | Reference sources |  |
| 5.3.12 | Explain the purpose of regulatory bills and their implications:  Range:  The protection of Information Bill  Protection of Harassment Act (2013) |  |