**Demarcation**

**Grade 10 IT November Theory Exam**

**Total Marks: 120**

**Time: 3 hours**

**SECTION A: Short Questions** ≈ (15)

Content from any of the sections below

**SECTION B: System Technologies** ≈ (25)

* Hardware
* What is IT?
* What is a computer?
* Data vs Information.
* Main components of a computer.
  + Hardware.
  + Software.
    - Distribution models.
* Types of computers.
* Advantages and Disadvantages of using computers.
* Information Communication Technology System.
* Basic concepts of Hardware.
  + Modular design.
  + Hardware used for input, output, processing and storage.
  + Motherboard.
  + Memory vs Storage.
  + Ports.
* Desktop vs Smartphone.
* Software
* System software.
* Types of operating systems.
* Utility software.
  + File management, Disk Cleanup, Compression, Anti-virus
* Device drivers.
* Computer management
* Desktop management
* Managing files and folders
* General housekeeping tasks
  + Disk Cleanup
  + Updates
  + Scheduling
  + Archive vs Backup
  + Compress and decompress
  + Security features
  + Installing and uninstalling software
  + System settings and properties

**SECTION C: Communication and Network Technologies** ≈ (25)

* Networks
* Definition
* Advantages and Disadvantages of a network.
* Essential equipment for a network and their functions.
* Network Topologies
* Types of networks.
* Client-Server vs Peer-To-Peer networks.
* Network Access Control.
* E-communications
* Communication types.
* Protocols (VoIP and IP).
* E-mail as a form of e-communication.
  + Format of an e-mail address.
  + How to use e-mail software.
* Internet Technologies
* Internet and WWW
  + Know the difference
  + IP addresses, domain names and URLs
* Connecting to the internet
  + ISP, Cellular, FTTH
* Browsing and Searching
  + Web browsers
  + Search Engines
  + Examples of each

**SECTION D: Data and Information Management** ≈ (15)

* Data, information and knowledge.
* Binary, Decimal and Hexadecimal number conversions.
* Digital character representation.
* Primitive data types.
* Error conditions.
* Data storage, file management and file types.
* Source code vs Object Code.
* Exporting and converting files.

**SECTION E: Solution Development** ≈ (15)

* Variable naming rules, data types and type casting
* Choose appropriate components and motivate choice
* Built-in functions and mathematical operators
* Types of errors
* Validation techniques
* Algorithms, Pseudocode and Flowcharts
* Conditional structures
* For, While and Repeat loops
* Trace tables

**SECTION F: Integrated scenario** ≈ (25)

Content from any of the other sections and the following

* Social implications
* The effect of ICT on humanity.
* License Agreements.
* Piracy.
* Economic reasons for using computers.
* Digital divide and Digital citizenship.
* Health.
* Green computing.
* Global e-communication.
* Online dangers and threats
* How to protect yourself
* Netiquette