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| **This document was downloaded from www.kusoma.co.ke**  **COMPUTER FORM 3 SCHEMES OF WORK – TERM 1** | | | | | | | | | | | |
| **WEEK** | **LESSON** | | **TOPIC** | **SUB - TOPIC** | | **OBJECTIVES** | **LEARNING/TEACHING ACTIVITIES** | | **LEARNING/TEACHING RESOURCES** | **REFERENCES** | **REMARKS** |
| **1** | **1** | | Data Representation in a computer | DEFINITION & INTRODUCTION | | By the end of the lesson, the learner should be able to   * Define data * Define information * Classify computers according to functionality with illustration | * Questions and answers * Discussions in groups * brainstorming | | * computer keyboard * electronic circuits * Charts * Photographs * Pictures from books | * Longhorn Computer studies Bk 3 page 1-3 * Computer studies by Onunga and Shah page 1 |  |
|  | **2** | |  | DATA REPRESENTATION | | By the end of the lesson, the learner should be able to   * Represent data in digital computers  1. On electronic circuits 2. On magnetic media 3. Optical media | * Discussions in groups * Exercises by the teacher | | * Charts * Floppy diskettes * Compact disk * Electronic circuit | * Longhorn Computer studies Bk 3 page 23 * Computer studies by Onunga and Shah page 1 |  |
|  | **3-4** | | Data Representation | DATA REPRESENTATION | | By the end of the lesson, the learner should be able to   * Give reasons why binary system is used in computers * Define bits, bytes, nibble and word | * Discussions * Question and answer | | * charts | * Longhorn Computer studies Bk 3 page 24 * Computer studies by Onunga and Shah page 1 |  |
| **2** | **1** | | Data Representation | NUMBER SYSTEMS | | By the end of the lesson, the learner should be able to   * Define decimal number * Represent data in decimal number system * Represent data in actual number system | * Group discussions * Exercises given and marked by the teacher | | * Charts * Simple calculations | * Longhorn Computer studies Bk 3 page 25 * Computer studies by Onunga and Shah page 6 |  |
|  | **2** | |  | NUMBER SYSTEM | | By the end of the lesson, the learner should be able to   * Represent data in actual number system * Represent data in Hexadecimal number system | * Group discussions * Questions and answering * exercises | | * charts * simple calculations * Computer | * Longhorn Computer studies Bk 3 page 26 * Computer studies by Onunga and Shah page 7-8 |  |
|  | **3/4** | | **QUIZ AND PROBLEM SOLVING**  **Teacher administers small assignment and revises for better retention** | | | | | |  |  |  |
| **3** | **1** | | Data representation | FURTHER CONVERSION OF NUMBER SYSTEMS | | By the end of the lesson, the learner should be able to   * Convert binary number to decimal number system * Convert decimal numbers to binary numbers | * Questions and answers * Discussions in groups | | * Charts * Simple calculations * Questions papers | * Longhorn Computer studies Bk 3 page 26 * Computer studies by Onunga and Shah page 8 |  |
|  | **2** | | “ | “ | | By the end of the lesson,, the learner should be able to   * Convert binary fraction to decimal number system * Convert a decimal fraction to binary | * Discussions * Questions and answers | | * Charts * Simple calculations * Questions papers | * Longhorn Computer studies Bk 3 page 26 * Computer studies by Onunga and Shah page |  |
|  | **3-4** | | **PROBLEM SOLVING AND QUIZ**  **Teacher administers questions and answer session for better retention** | | | | | | |  |  |
| **4** | **1** | | DATA REPRESENTATION | Converting octal numbers to decimal and binary numbers | | By the end of the lesson, the learner should be able to   * Convert octal numbers to decimal numbers * Convert octal numbers to binary numbers | * Discussion * Question and answer | | * Chart | * Longhorn Computer studies Bk 3 page 26 * Computer studies by Onunga and Shah page 12 |  |
|  | **2** | | DATA REPRESENTATIONS | Converting hexadecimal numbers to binary number | | By the end of the lesson, the learner should be able to   * Convert hexadecimal to decimal numbers * Convert hexadecimal numbers to binary numbers | * Discussions * Question and answer | | * Charts * Simple calculations * Computers * Scientific calculators | * Longhorn Computer studies Bk 3 page 26 * Computer studies by Onunga and Shah page 13-15 |  |
| **3-4** | **QUIZ AND PROBLEM SOLVING**  **Can be inform of a question/answer session for retention** | | | | | | | | | | |
| **5** | **1** | DATA REPRESENTATIONS | | Symbolic Representation using coding schemes | | By the end of the lesson, the learner should be able to   * Explain the binary coded decimal code as a representation Scheme (BCD) * Explain the extended Binary coded decimal interchange code (EBCDIC) | * Discussions * Question and answer | | * Charts * Scientific Calculators | * Longhorn Computer studies Bk 3 page 26 * Computer studies by Onunga and Shah page 22-27 |  |
|  | **2** | DATA REPRESENTATION | | Symbolic Representation using coding schemes | | By the end of the lesson, the learner should be able to   * Explain the American standard code for information interchange code (ASCII) as a representation scheme | * Discussion in groups | | * Charts * Scientific and simple calculator * computer | * Longhorn Computer studies Bk 3 page 26 * Computer studies by Onunga and Shah page 22-27 |  |
|  | **3-4** | **QUIZ FOR TETENTION**  **Administer a small exam** | | | | | | | | | |
| **6** | **1** |  | | BINARY ARITHMETIC OPERATIONS | | By the end of the lesson, the learner should be able to   * Represent signed binary numbers using prefixing an extra sign bit to a binary number and ones complement | * Teacher demonstrates * Group discussions * Questions and answering | | * Simple calculators * PDA’s * charts | * Longhorn Computer studies Bk 3 page 27 * Computer studies by Onunga and Shah page 27 |  |
|  | **2** |  | | BINARY ARITHMETIC OPERATIONS | | By the end of the lesson, the learner should be able to   * Represent signed binary numbers using two’s complement | * Teachers demonstrates * Question and answer * Group discussions | | “ | * Longhorn Computer studies Bk 3 page 27 * Computer studies by Onunga and Shah page 27 |  |
|  | **3-4** |  | | BINARY ADDITION | | By the end of the lesson, the learner should be able to   * Perform seven possible binary additions * Outline the procedure for binary additions | * Demonstration by the teacher * Teacher gives and marks questions * Group discussions | | * Charts | * Longhorn Computer studies Bk 3 page 27 * Computer studies by Onunga and Shah page 27 |  |
| **7** | **1** |  | | BINARY ARITHMETIC OPERATIONS | | By the end of the lesson, the learner should be able to   * Perform direct subtraction * Perform subtraction using ones complement | * Discussions * Demonstration by teacher * Question and answer | | * Charts * calculator | * Longhorn Computer studies Bk 3 page 26 * Computer studies by Onunga and Shah page 28 |  |
|  | **2** |  | | BINARY ARITHMETIC OPERATIONS | | By the end of the lesson, the learner should be able to   * Perform subtraction using twos complement | * Discussions * Demonstration by teacher * Question and answer | | * Charts * calculator | * Longhorn Computer studies Bk 3 page 26 * Computer studies by Onunga and Shah page 28 |  |
|  | **3-4** | **QUIZ AND PROBLEM SOLVING**  **Teacher evaluates by giving questions to ascertain whether objectives are achieved** | | | | | | | |  |  |
| **8** | **1** | Data Processing | | DEFINITION AND INTRODUCTION | | By the end of the lesson, the learner should be able to   * Define data information and data processing * Describe the data processing cycle * Give methods of data collection | * Group discussions * Question and answering * brainstorming | | * charts * computer | * Longhorn Computer studies Bk 3 page 32 * Computer studies by Onunga and Shah page 32-35 |  |
|  | **2** | Data Processing | | DATA PROCESSING CYCLE | | By the end of the lesson, the learner should be able to   * List stages for data processing * Describe the listed data processing cycle stage | * Group discussions * Question and answering * Brainstorming | | * charts * computer | * Longhorn Computer studies Bk 3 page 32 * Computer studies by Onunga and Shah page 32-35 |  |
|  | **3-4** | Data Processing | | DATA PROCESSING CYCLE | | By the end of the lesson, the learner should be able to   * Give the errors that influence the accuracy of data and information output * Explain the errors in data processing | * Discussion in groups * Question and answer * Assignments marked by the teacher | | * Flash cards * Charts * computer | * Longhorn Computer studies Bk 3 page 35 * Computer studies by Onunga and Shah page 33 |  |
| **9** | **1** | Data processing | | DATA INTEGRITY | | By the end of the lesson, the learner should be able to   * Define data integrity * Give the measurements of data integrity * Accuracy * Timelines * Relevance * Describe the listed data integrity measurements | * Discussion in groups * Illustrations by the teacher * Question and answer | | * Flash cards * Simple information system | * Computer studies by Onunga and Shah page 41 |  |
|  | **2** | Data processing | | DATA PROCESSING METHODS | | By the end of this lesson, the learner should be able to   * State the ways of minimizing threat to data integrity * List and describe the methods of data processing | * Discussion in groups * Illustrations by the teacher * Question and answer | | * Flash cards * Simple information system | * Computer studies by Onunga and Shah page 41 |  |
|  | **3-4** | Data processing | | COMPUTER FILES | | By the end of the lesson, the learner should be able to   * Define a computer file * Give the types of computer files * State the advantages of computerized filing | * Discussion in groups * Illustrations by the teacher * Question and answer | | * Charts | * Computer studies by Onunga and Shah page 49 |  |
| **10** | **1** | Data processing | | ELEMENTS OF COMPUTER FILE | | By the end of the lesson, the learner should be able to   * List the elements of a computer file * Describe the listed elements of a computer file | * Discussion in groups * Question and answer * demonstration | | * database * chart with relation database | * Longhorn Computer studies Bk 3 page 40 |  |
|  | **2** | Data processing | | CLASSIFICATION OF COMPUTER FILES | | By the end of the lesson, the learner should be able to   * Classify computer files * Differentiate between logical and physical computer files | * Illustration by the teacher | | * Floppy diskette * Compact disc * Computer video tape | * Longhorn Computer studies Bk 3 page 41 * Computer studies by Onunga and Shah page 50 |  |
|  | **3-4** | Data processing | | COMPUTER PROCESSING FILES | | By the end of the lesson, the learner should be able to   * Give the types of processing files * Describe the listed types of processing files * Master files * Transaction file * Reference files * Backup files * Sort files | * Discussions * Illustration by the teacher * Question and answer | | * Charts * Flash cards | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 41 |  |
| **11** | **1** | Data processing | | FILE ORGANIZATION METHODS | | By the end of the lesson, the learner should be able to   * Define file organization * List the methods of organizing files on a storage media * Describe the listed methods of file organization | * Question and answer * Brainstorming * Discussions in groups | | * Floppy diskettes * Compact disk * Video tapes | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 42 * Computer studies by Onunga and Shah page 55 |  |
|  | **2** | Data processing | | ELECTRONIC DATA PROCESSING | | By the end of the lesson, the learner should be able to   * Give the data processing modes * Describe  1. Online processing 2. Real-time processing 3. Distributed processing | * Discussions in groups * Question and answer * Illustration by the teacher | | * Charts * Flash cards | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 43-45 * Computer studies by Onunga and Shah page 61 |  |
|  | **3-4** | Data processing | | ELECTRONIC DATA PROCESSING MODES | | By the end of the lesson, the learner should be able to   * Describe  1. Time- sharing 2. Batch processing 3. Multi processing 4. Multi-tasking 5. Interactive processing | * Discussions in groups * Question and answer * Illustration by the teacher | | * Charts * Flash cards | * Computer studies by Onunga and Shah page 612-69 |  |
|  | **12-13** | **END OF TERM EXAMS AND CLOSING OF SCHOOL** | | | | | | | | | |
|  | | | | | | | | | | | |
| **COMPUTER FORM 3 SCHEMES OF WORK – TERM 2** | | | | | | | | | | | |
| **WEEK** | **LESSON** | | **TOPIC** | **SUB - TOPIC** | | **OBJECTIVES** | | **LEARNING/TEACHING ACTIVITIES** | **LEARNING/TEACHING RESOURCES** | **REFERENCES** | **REMARKS** |
| **1** | **1** | | ELEMENTARY PROGRAMMING PRINCIPLES | DEFINITION OF PROGRAMMING | | By the end of this lesson, the learner should be able to   * Define programming * List the terms used in programming * Describe the listed terms * Differentiate between source program and object program | | * Question and answer * Discussion in groups * Illustration by the teacher | * Charts * Books * Journals * Software * computer | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 47 * Computer studies by Onunga and Shah page 72 |  |
|  | **2** | | ELEMENTARY PROGRAMMING PRINCIPLES | LEVELS OF PROGRAMMING LANGUAGE | | By the end of the lesson, the learner should be able to   * Classify the programming languages * Describe the low level programming language | | * Demonstration * Q/A | * Flash cards * Charts * books | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 49-51 * Computer studies by Onunga and Shah page 73 |  |
|  | **3-4** | | ELEMENTARY PROGRAMMING PRINCIPLES | LEVELS OF PROGRAMMING LANGUAGE | | By the end of the lesson, the learner should be able to   * Describe the high level language * State the advantages and disadvantages of low-level and high level languages | | * Q/A * Discussion | * Flash cards * Charts | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 59 * Computer studies by Onunga and Shah page 74-75 |  |
| **2** | **1** | | ELEMENTARY PROGRAMMING PRINCIPLES | PROGRAM DEVELOPMENT | | By the end of the lesson, the learner should be able to   * List the stages in program development * Describe  1. program recognition 2. program definition | | * Question and answer * Discussion in groups | * Flash cards * charts | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 60-66 |  |
|  | **2** | | ELEMENTARY PROGRAMMING PRINCIPLES | PROGRAM DEVELOPMENT | | By the end of the lesson, the learner should be able to   * Describe  1. Program design 2. Program coding | | * Demonstration * Illustrations by teacher | * Computer software | * Computer studies by Onunga and Shah page 83 |  |
|  | **3-4** | | ELEMENTARY PROGRAMMING PRINCIPLES | PROGRAM DEVELOPMENT | | By the end of the lesson, the learner should be able to   * Describe  1. program testing 2. Program implementation and maintenance | | * Discussions in groups * Illustrations by the teacher * Question and answer | * Flash cards * charts | * Computer studies by Onunga and Shah page 85 |  |
| **3** | **1** | | ELEMENTARY PROGRAMMING PRINCIPLES | PROGRAM DOCUMENTATION | | By the end of the lesson, the learner should be able to   * Define the term program documentation * State the forms of documentation * Describe the target groups for documentation | | * Discussions in groups * Illustrations by the teacher * Question and answer | * Chalkboard * charts | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 67 |  |
|  | **2** | | ELEMENTARY PROGRAMMING PRINCIPLES | DEVELOPMENT OF ALGORITHMS | | By the end of the lesson, the learner should be able to   * Define algorithm * List tools used in algorithm * Distinguish between pseudo code and flow charts | | * Discussion in groups * Question and answer * Illustration by the teacher | * Chalkboard * Charts * Flash cards | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 68 |  |
|  | **3-4** | | ELEMENTARY PROGRAMMING PRINCIPLES | DESIGNING MORE COMPLEX ALGORITHMS | | By the end of the lesson, the learner should be able to   * Give comparison between a pseudo code and a flow chart * Design complex algorithms | | * Question and answer * Demonstration by the teacher * Group discussions | * Charts | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 68 |  |
| **4** | **1** | | ELEMENTARY PROGRAMMING PRINCIPLES | PROGRAM CONTROL STRUCTURES | | By the end of the lesson, the learner should be able to   * Define program control structures * List three control structures * Describe sequence as a control structure | | * Discussions in groups | * Charts * chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 72-78 * Computer studies by Onunga and Shah page 93 |  |
|  | **2** | | ELEMENTARY PROGRAMMING PRINCIPLES | PROGRAM CONTROL STRUCTURES | | By the end of the lesson, the learner should be able to   * Describe the use of iteration (looping) as a control structure | | * Discussion in groups | * Charts * chalkboard | * Computer studies by Onunga and Shah page 94 |  |
|  | **3-4** | | ELEMENTARY PROGRAMMING PRINCIPLES | Program control structures | | By the end of the lesson, the learner should be able to   * Describe selection as a control structure * Design a more complex algorithm | | * Illustration by the teacher * Discussion in groups * Question and answer | * Chart * chalkboard | * Computer studies by Onunga and Shah page 94 |  |
| **5** | **1** | | **PROBLEM SOLVING** | | | | | |  |  |  |
|  | **2** | | SYSTEM DEVELOPMENT | | Definition | By the end of the lesson, the learner should be able to   * Define the term system * Describe a system list * List the characteristics of a system | | * Discussion * Question and answer | * Charts * Chalkboard * Journals * Computer * books | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 91-95 * Computer studies by Onunga and Shah page 168 |  |
|  | **3-4** | | SYSTEM DEVELOPMENT | | Information system | By the end of the lesson, the learner should be able to   * Describe the listed characteristics of a system * Define information system | | * Discussion in groups * Illustration by the teacher | * Charts * Flash cards * Chalkboard * Computer * Books | * Computer studies by Onunga and Shah page 170 |  |
| **6** | **1** | | SYSTEM DEVELOPMENT | | Information system | By the end of the lesson, the learner should be able to   * State the main purpose of an information system * Give reasons why information system is developed * State the role of information system analyst | | * Discussion * Illustrations by the teacher * Question and answer | * Charts * Flash cards * Computer | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 95 |  |
|  | **2** | | SYSTEM DEVELOPMENT | | Theories of system development | By the end of the lesson, the learner should be able to   * Describe tradition approach * Describe rapid application development | | * Discussions in groups * Illustration by the teacher | * Chalk board * Flash cards * Charts | * Computer studies by Onunga and Shah page 170 |  |
|  | **3-4** | |  | | Theories of system development | By the end of the lesson, the learner should be able to   * Describe the structured approach * Give examples of ways of information of gathering | | * Discussions in groups * Illustration by the teacher | * Chalk board * Flash cards * Charts | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 97 |  |
| **7** | **1** | | SYSTEM DEVELOPMENT | | Stages of system development | By the end of the lesson, the learner should be able to   * State and define all the stages of system development | | * Illustration by the teacher * Question and answer | * Chalk board * charts | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 97 |  |
|  | **2** | | SYSTEM DEVELOPMENT | | Stages of system development | By the end of the lesson, the learner should be able to   * Give the methods used in information gathering * Describe interviews studying of available documents as used in information gathering | | * Demonstration * Discussion | * Chalk board * Charts | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 100-104 * Computer studies by Onunga and Shah page 175 |  |
|  | **3-4** | | SYSTEM DEVELOPMENT | | Stages of system development | By the end of the lesson, the learner should be able to   * Prepare a questionnaire * Prepare and present a fait finding report * Describe how automated methods are used | | * Discussions in groups * Question and answer * Illustration by the teacher | * Sample questionnaire * Chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 104 |  |
| **8** | **1** | | SYSTEM DEVELOPMENT | | Requirements specification | By the end of the lesson, the learner should be able to   * Describe output specification * Describe input specification | | * Discussions * Question and answer | * Chalkboard * Charts | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 105 |  |
|  |  | | SYSTEM DEVELOPMENT | | Requirements specification | By the end of the lesson, the learner should be able to   * Describe file/data stores * Describe hardware and software requirements | | * Discussions * Question and answer | * Chalkboard * Charts | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 109 |  |
|  |  | | SYSTEM DEVELOPMENT | | System design | By the end of the lesson, the learner should be able to   * Define system flowchart * Identify common flowchart symbols | | * Discussions * Question and answer | * Chalkboard * Charts | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 109 |  |
| **9** | **1** | | SYSTEM DEVELOPMENT | | Designing a system flowchart | By the end of the lesson, the learner should be able to   * Identify guidelines fro designing system flowcharts * Write a system flowchart using a case study | | * Discussions * Question and answer * Illustration by the teacher | * Charts * Chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 110 |  |
|  | **2** | |  | | Designing a system flowchart | By the end of the lesson, the learner should be able to   * Write a simple book borrowing module flowchart * Write cleaners information system flowchart | | * Illustration by the teacher * Discussion in groups | * Charts * Chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 110 |  |
|  | **3-4** | |  | | Designing a system flowchart | By the end of the lesson, the learner should be able to   * Write a sample library books management system flowchart * Use data flow diagrams | | * Question and answer * Discussion in groups | * Chalkboard * chart | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 110 |  |
| **10** | **1** | | SYSTEM DEVELOPMENT | | System Construction | By the end of the lesson, the learner should be able to   * Define the term system construction * Identify number of technique that can be used to construct a designed system | | * Question and answer * Discussion in groups | * Charts * Chalkboard * Information system (Cleaner) | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 110 |  |
|  | **2** | |  | | System Implementation | By the end of the lesson, the learner should be able to   * Define system implementation and file conversion * Describe factors considered during file conversion | | * Illustrations by the teacher * discussion | * Charts * chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 116 |  |
|  | **3-4** | |  | | Change over strategies | By the end of the lesson, the learner should be able to   * Define the term changeover * List the system change over strategies * Describe three listed changeover strategies | | * Discussions * Question and answer | * Flash card * Charts * chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 116 |  |
| **11** | **1** | |  | | System maintenance and revision | By the end of the lesson, the learner should be able to   * Define system maintenance * Define system review * Describe security control measures | | * Illustration by the teacher * Question and answer | * Charts * Flash cards | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 116 |  |
|  | **2** | |  | | System documentation | By the end of the lesson, the learner should be able to   * Write a report on case study | | * Illustration by the teacher * Question and answer | * Charts * Flash cards | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 117 |  |
|  | **3-4** | |  | | System documentation | By the end of the lesson, the learner should be able to   * Develop a system using a case study | | * Illustration by the teacher * Discussions | * A chart * Computer * Printer * Chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 117 |  |
| **12** | **1** | |  | | System documentation | By the end of the lesson, the learner should be able to   * Identify comprehensive system documentation details * Write a report on the case study | | * Discussions * Question and answer | * Charts * Computer | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 118-120 |  |
|  | **2,3& 4** | |  | | **PRACTICALS** | | | | |  |  |
| **END OF TERM EXAMINATION** | | | | | | | | | | | |
|  | | | | | | | | | | | |
| **COMPUTER FORM 3 SCHEMES OF WORK – TERM 3** | | | | | | | | | | | |
| **WEEK** | **LESSON** | | **TOPIC** | | **SUB - TOPIC** | **OBJECTIVES** | | **LEARNING/TEACHING ACTIVITIES** | **LEARNING/TEACHING RESOURCES** | **REFERENCES** | **REMARKS** |
| **1** | **1** | | PROGRAMMING WITH VISUAL AIDS | | Definition | By the end of the lesson, the learner should be able to   * Define the term visual basic * Start up visual basic * Identify features of visual basic | | * Demonstration by the teacher * Discussions * Question and answer | * Chalkboard * Computer * chart | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 122 |  |
|  | **2** | | PROGRAMMING | | Visual basic toolbox | By the end of the lesson, the learner should be able to   * Identify parts of the visual basic tool box * Describe parts of the visual basic toolbox | | * Demonstration * Question and answer | * Chalkboard * Photograph * computer | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 123 |  |
|  | **3-4** | |  | | Saving a visual project | By the end of the lesson, the learner should be able to   * Save a visual basic project * Open an existing visual basic project | | * Demonstration by the teacher * Question and answer * Practical | * Computer * Chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 123 |  |
| **2** | **1** | |  | | Visual basic fundamental concepts | By the end of the lesson, the learner should be able to   * Identify the visual basic fundamental concepts * Describe the listed fundamental concepts | | * Discussions * Questions and answer | * Chalkboard * Charts * Computer * Simple calculators | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 136 |  |
|  | **2** | |  | | Mathematical operators | By the end of the lesson, the learner should be able to   * Identify mathematical operators * Describe the listed mathematical operators | | * Discussions * Question and answers | * Chalkboard * Charts * Computer * Simple calculators | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 137 |  |
|  | **3-4** | |  | | Numeric strings and values | By the end of the lesson, the learner should be able to   * convert a numeric string to a value * Convert a value to a string | | * Illustrations by the teacher * Discussions * Question and answer | * Charts * computer | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 137 |  |
| **3** | **1** | |  | | Project developments | By the end of the lesson, the learner should be able to   * Create a program used to calculate the area of a rectangle | | * Discussion in groups * Illustrations by the teacher | * Charts * Computer | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 145 |  |
|  | **2** | |  | | Project developments | By the end of the lesson, the learner should be able to   * Write a program used to find roots of a quadratic expression | | * Discussion in groups * Illustrations by the teacher | * Charts * Computer | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 147 |  |
|  | **3-4** | |  | | Case construct  Looping construct | By the end of this lesson, the learner should be able to   * Use case statement that can display the name of a weekday when its number is provided * Write a program using do-loop * Write a program using FOR-NEXT LOOP | | * Demonstration by the teacher * Discussion * Question and answer | * Chart * Chalkboard * Computer * printer | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 147 |  |
| **4** | **1** | |  | | Working with graphical objects | By the end of the lesson, the learner should be able to   * Insert a picture using picture box * Define module and procedure * Declare general subroutines | | * Demonstration * Question and answer * discussion | * chart * computer | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 150 |  |
|  | **2** | |  | | Working with graphical objects | By the end of the lesson, the learner should be able to   * Write a general subroutine that solves y= xn given that the value of n are integers | | * Demonstration * Question and answer * practical | * computer * printer * chart * chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 151 |  |
|  | **3-4** | |  | | Creating means and dialog boxes | By the end of the lesson, the learner should be able to   * Create a dropdown menu * Create a message and dialog boxes | | * Demonstration * Discussions * Question and answers | * computer * printer * chart * chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 151 |  |
|  | **1** | |  | | List boxes and control boxes | By the end of the lesson, the learner should be able to   * Define list box and combo box * Create a list box and a combo box * Create a project that loads a list of items | | * Discussion * Demonstration * Practical | * Chart * Photograph * Computer * chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 161 |  |
| **5** | **2** | |  | | Visual basic data structures | By the end of the lesson, the learner should be able to   * Define the term arrays * Declare an array | | * Discussion * Demonstration * Practical | * Chart * Photograph * Computer * chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 163 |  |
|  | **3-4** | |  | | Visual basic data structures | By the end of the lesson, the learner should be able to   * Declare two dimensional arrays * Write array of records | | * Discussion * Demonstration * Practical | * Chart * Photograph * Computer * chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 161 |  |
| **6** | **1** | |  | | Data files | By the end of the lesson, the learner should be able to   * Define a file * Identify types of files recognized by visual basic * Link visual basic to data base | | * Demonstration * Practical * Discussion | * Chart * Computer * chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 187-189 |  |
|  | **2** | | INTRODUCTION TO DATA BASE DESIGN | | Definition | By the end of the lesson, the learner should be able to   * Define database * Identify relationships in database | | * Demonstration * Practical * Discussion | * Chart * Computer * chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 187-189 |  |
|  | **3-4** | |  | | Defining attributes | By the end of the lesson, the learner should be able to   * Define a foreign key * Distinguish between an entity and attributes * Create one to many relationships | | * Question and answer * Practical * Demonstration * discussions | * computer * chart * chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 203-204 |  |
| **7** | **1** | |  | | File table structure | By the end of the lesson, the learner should be able to   * Create a table * Set primary key and foreign key | | * Demonstration * Discussion * Practical | * Computer * Chart * Chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 217 |  |
|  | **2** | |  | | Enforcing Referential integrity | By the end of the lesson, the learner should be able to   * Enforce referential integrity between tables * Normalize table | | * Demonstration * Discussion * Practical | * Computer * Chart * Chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 217 |  |
|  | **3-4** | |  | | Forms and commands | By the end of the lesson, the learner should be able to   * Create a form/ interface * Call for commands | | * Discussion in groups * Demonstration * Practical * Question and answer | * Computer * Chart * Chalkboard | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 21o |  |
| **8** | **1** | |  | | Creating reports | By the end of the lesson, the learner should be able to   * Describe the tools used to automate database * Create a switchboard | | * Discussion in groups * Demonstration * Practical * Question and answer | * Chart * computer | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 211 |  |
|  | **2** | |  | | Automating database | By the end of the lesson, the learner should be able to   * Describe the tools used to automate database * Create a switchboard | | * Discussion in groups * Demonstration * Practical * Question and answer | * Chart * computer | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 212 |  |
|  | **3-4** | |  | | Automating database | By the end of the lesson, the learner should be able to   * Create macros * Develop a system using a case study | | * Demonstration * Assignment | * Computer * Chart | * Longhorn Computer studies by Mburu and Chemwa Bk 3 page 212 |  |
| **REVISION AND END TERM EXAMS** | | | | | | | | | | | |

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