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**DAVID MBITI WAMBULI TECHNICAL AND VOCATIONAL COLLEGE**

**NAME OF TUTOR: OMAI BOGONKO**

**SCHEME OF WORK**

**COURSE UNIT: DEVELOP COMPUTER PROGRAM LEVEL: 6 TERM: 1 YEAR: 2024**

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| **WK** | **lesson** | | **TOPIC/SUB-TOPIC** | | **OBJECTIVES** | | **LEARNING ACTIVITIES** | | | **LEARNING RESOURCES & REFERENCES** | | **REMARKS** | |
| 1 | **REPORTING** | | | | | | | | | | | | |
| 2 | 1 | | DEVELOP COMPUTER PROGRAM | | *By the end of this lesson the trainee should be able to:*   1. Define;   Program,  Programming   1. Explain types of computer paradigms. 2. Identify programming concepts i.e. program structure, variable declaration… 3. Explain approaches of program development. 4. Describe the phases of program development 5. Describe the approaches of program development | | -writing notes  -discussions  Practical work | | | Norton.P.& Holzner S(2003) Visual Basic for Windows- Peter Norton Computing Ltd- New York  -Computers  -Internet  https://www.w3schools.com/ | |  | |
| 2 | | PHASES OF PROG DEVELOPMENT | | *By the end of this lesson the trainee should be able to:*   1. Describe the phases of program development in detail. 2. Explain the program design and Analysis tools. 3. Identify the algorithm writing tools. 4. Identify factors affecting program design and analysis. | | * Practical work * Note taking | | | -Norton.P.& Holzner S(2003) Visual Basic for Windows- Peter Norton Computing Ltd- New York  -Computers  -Internet  https://www.w3schools.com/ | |  | |
| 3 | 1 | | DEVELOP A COMPUTER PROGRAM | | *By the end of this lesson the trainee should be able to:*   1. Describe the format of a computer program. 2. Describe the fundamentals of OOP using Java i.e.   -String special characters,  -Java Math…  (c) Install java IDE. | | * Writing notes. * Discussions * Code writing. * Sitting assignment. | | | Norton.P.& Holzner S(2003) Visual Basic for Windows- Peter Norton Computing Ltd- New York  -Computers  -Internet  https://www.w3schools.com/ | |  | |
| 2 | | ARRAYS | | *By the end of this lesson the trainee should be able to:*   1. Define arrays 2. Apply the use of Multidimensional arrays. | | writing notes  -discussions  - Practical work | | | Norton.P.& Holzner S(2003) Visual Basic for Windows- Peter Norton Computing Ltd- New York  -Computers  -Internet  https://www.w3schools.com/ | |  | |
| 4 | 1 | | JAVA METHODS | | *By the end of this lesson the trainee should be able to:*   1. Define a method. 2. Create a method. 3. Create a method. 4. Apply parameters and methods in a program. 5. Define method overloading. 6. Perform method overloading. | | -writing notes  -discussions  Practical work | | | Norton.P.& Holzner S(2003) Visual Basic for Windows- Peter Norton Computing Ltd- New York  -Computers  -Internet  https://www.w3schools.com/ | |  | |
|  | 2 | | JAVA SCOPE | | *By the end of this lesson the trainee should be able to:*   1. Define scope. 2. Declare method scope. 3. Describe block scope. 4. Describe Java objects and classes. 5. Describe class attributes and constructors. | | writing notes  -discussions  -Practical exercises | | | Norton.P.& Holzner S(2003) Visual Basic for Windows- Peter Norton Computing Ltd- New York  -Computers  -Internet  https://www.w3schools.com/ | |  | |
| 5 | 1 | | C PROGRAMMING | | *By the end of this lesson the trainee should be able to:*   1. Define C. 2. Describe C syntax using an example. 3. Install C IDE. 4. Create first C file. 5. Explain the printf function. | | -writing notes  -discussions  -Practical exercises | | | Norton.P.& Holzner S(2003) Visual Basic for Windows- Peter Norton Computing Ltd- New York  -Computers  -Internet  https://www.w3schools.com/ | |  | |
| 2 | | ESCAPE SEQUENCES, COMMENTS… | | *By the end of this lesson the trainee should be able to:*   1. Define escape sequence. 2. Describe and use C comments. 3. Declare variables. 4. Describe C data types. 5. Declare constants. 6. Describe C operators. | | writing notes  -discussions  -Practical exercises | | | Norton.P.& Holzner S(2003) Visual Basic for Windows- Peter Norton Computing Ltd- New York  -Computers  -Internet  https://www.w3schools.com/ | |  | |
| 6 | 1 | | C CONDITIONS AND LOGICAL STATEMENTS. | | *By the end of this lesson the trainee should be able to:*   1. Describe C conditions and logical statements if else, else if… 2. Perform c loops. 3. Describe C arrays. | | writing notes  -discussions  -Practical exercises | | | Norton.P.& Holzner S(2003) Visual Basic for Windows- Peter Norton Computing Ltd- New York  -Computers  -Internet  https://www.w3schools.com/ | |  | |
| 2 | | C STRINGS… | | *By the end of this lesson the trainee should be able to:*   1. Describe C strings i.e. special characters, string functions… 2. Describe the C user input. 3. Perform C user input. 4. Describe memory address and pointers. 5. Perform memory and address pointing. 6. Describe C function.  * Function parameters * Function declaration * Function recursion.   (e) Describe c files | | writing notes  -discussions  -Practical exercises | | | Norton.P.& Holzner S(2003) Visual Basic for Windows- Peter Norton Computing Ltd- New York  -Computers  -Internet  https://www.w3schools.com/ | |  | |
| 7 | **CAT** | | | | | | | | | | | | |
| 8 | **1** | **PHP** | | *By the end of this lesson the trainee should be able to:*   1. Describe PHP. 2. Install PHP. 3. Describe PHP syntax. 4. Describe PHP comments. 5. Describe PHP variables. 6. Perform PHP data types. 7. Describe PHP objects. 8. Perform PHP forms | | | writing notes  -discussions  -Practical exercises | |  | |  | |
|  | **2** | **PHP AND DB** | | *By the end of this lesson the trainee should be able to:*   1. Connect to a database by PHP. | |  | |  | | |  | |
| 9&10 | **EXAMINATIONS** | | | | | | | | | | | |