

**SCHEME OF WORK (KNEC CLASSES)**

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| **DEPARTMENT: COMPUTING AND INFOMATICS** | | | | **NAME OF TRAINER: DUNCAN NDEGWA** | | | **NUMBER OF TRAINEES: 5** | | |
| **UNIT CODE:** | | | | **TERM: II** | **DATE OF PREPARATION: 28/8/2024** | | **CLASS: CICT/J23** | | |
| **COURSE: CERTIFICATE IN ICT** | | | | | | | **LEVEL: CRAFT** | | |
| **UNIT OF COMPETENCE: STRUCTURED PRORAMMING** | | | | | | | **DATE OF REVISION:3/9/2024** | | |
| **SCHEDULE** | | | | | | | | | |
| **WEEK** | **NUMBER OF HOURS** | **TOPIC** | **SUB -TOPIC** | **SPECIFIC OBJECTIVES** | | **ACTVITIES** | | **REFERENCE/ RESOURCES** | **REMARKS** |
| 1 | **REPORTING AND REISTRATION OF STUDENTS** | | | | | | | | |
| 2 | 4 | Control structures in C | * Sequence * Iteration * selection | By the end of the lesson the leaner should be able to:   * implement control structures in c * Explain the fundamentals of C programming | | * Taking notes * Practical session * Class discussion * Questions and answers | | * E-books   Dijkstra, E. W. (2002). *Ewd 1308: What led to “notes on structured programming”* (pp. 340-346). Springer Berlin Heidelberg. |  |
| 3 | 4 | Sub-programs | * Types of sub- programs * Scope of variables * Parameter passing | By the end of the lesson the leaner should be able to:   * Implement functions in C * Explain the fundamentals of C programming | | * Taking notes * Practical session * Class discussion   Questions and answers | | * E-books   Dijkstra, E. W. (2002). *Ewd 1308: What led to “notes on structured programming”* (pp. 340-346). Springer Berlin Heidelberg. |  |
| 4 | 4 | Pointers | * Pointers | By the end of the lesson the leaner should be able to:   * Describe pointers * Implement pointers in C | | * Taking notes * Practical session * Class discussion   Questions and answers | | * E-books   Dijkstra, E. W. (2002). *Ewd 1308: What led to “notes on structured programming”* (pp. 340-346). Springer Berlin Heidelberg. |  |
| 5 | 4 | Data structures | * Arrays * Structures * Stacks * Queues * Trees * Linked lists | By the end of the lesson the leaner should be able to:   * Describe data structures * Implement data structures in C | | * Taking notes * Practical session * Class discussion   Questions and answers | | * E-books   Dijkstra, E. W. (2002). *Ewd 1308: What led to “notes on structured programming”* (pp. 340-346). Springer Berlin Heidelberg. |  |
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| 7 | **CAT ONE** | | | | | | | | |
| 8 | 4 | Searching and Sorting | * Sorting * Searching | By the end of the lesson the leaner should be able to:   * Explain sorting techniques * Explain searching techniques * Implement sorting techniques * Implement sorting techniques | | * Taking notes * Practical session * Class discussion   Questions and answers | | * E-books   Dijkstra, E. W. (2002). *Ewd 1308: What led to “notes on structured programming”* (pp. 340-346). Springer Berlin Heidelberg. |  |
| 9 | 4 | Files | * File Concepts | By the end of the lesson the leaner should be able to:   * Explain file concepts * Implement file concepts in C | | * Taking notes * Practical session * Class discussion   Questions and answers | | * E-books   Dijkstra, E. W. (2002). *Ewd 1308: What led to “notes on structured programming”* (pp. 340-346). Springer Berlin Heidelberg. |  |
| 10 | 4 | Programme Documentation | * Definition * Types | By the end of the lesson the leaner should be able to:   * Explain file concepts * Implement file concepts in C | | * Taking notes * Practical session * Class discussion   Questions and answers | | * E-books   Dijkstra, E. W. (2002). *Ewd 1308: What led to “notes on structured programming”* (pp. 340-346). Springer Berlin Heidelberg. |  |
| 11 | 4 | Emerging Trends in Structural programming | * Emerging Trends * Challenges of emerging trends | By the end of the lesson the leaner should be able to:   * Identify emerging trends * Explain the challenges of emerging trends * Cope with emerging trends | | * Taking notes * Practical session * Class discussion * Questions and answers | | * E-books * Dijkstra, E. W. (2002). *Ewd 1308: What led to “notes on structured programming”* (pp. 340-346). Springer Berlin Heidelberg. |  |
| 12 | **REVISION AND EXAMINATIONS** | | | | | | | | |

CHECKED BY VERIFIED BY:

NAME: NAME:

DESIGNATION DESIGNATION