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**LEARNING PLAN**

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| **Unit of Competency:** COMPUTER REPAIR AND MAINTENANCE | **Unit Code: IT/CU/ICT/CR/6/6** |
| **Name of Trainer: DUNCAN NDEGWA** | **TRAINER Number:** |
| **Institution: LAIKIPIA EAST TVC** | **Level:** LEVEL6 |
| **Date of Preparation: 23/1/2024** | **Date of Revision:** |
| **Number of Trainees: 3** | **Class: DICT/J24** |
| **TOTAL UNIT HOURS: HOURS: 150HRS** | **NUMBER OF SESIONS: 10 OF 4 HRS** |
| **Skill or Job Task:**  Individuals need to perform troubleshooting, disassemble faulty components, repair/replace faulty components, test component functionality upgradation and test of hardware and software. | |
| **Benchmark or Criterial to be used**  Critical Aspects of Competency.   1. Perform troubleshooting 2. Disassemble faulty components 3. Repair/Replace and reassemble faulty components 4. Test computer functionality 5. Upgrade computer software/hardware. | |

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| **Week** | **Session No.** | | | **Session Title** *(Obtained from the PCs)* | **Session Learning Outcome** *(Based on the content to be covered in the session)* | | **Trainer**  **Activities** | **Trainee**  **Activities** | **Resources & Refs** | **Learning Checks/ Assessments** | **Reflections & Date** |
| 1 | | 1(4hrs) | Maintenance tools | | By the end of the session, the trainee should be able to:  Overview of Maintenance Tools  Overview of the importance of computer maintenance, types of maintenance (preventive, corrective, predictive) | | *Trainer*   * Give notes * Poses questions on terms applied | *Trainee*   * give responses to questions posed * Poses questions on terms applied   ***Assignment*** | **Refs:**  1. OS/Curriculum  2.Learning guides  Etc  **Training Aids:**  Projectors | **Knowledge**  1. oral questioning    **Skills**  1. observation  **Attitudes**  1. observation |  |
| 2. | 2(4hrs) | | | Types of computer maintenance | Importance of preventive maintenance  Tips for keeping computers running smoothly | * Give notes * Poses questions on terms applied | | * give responses to questions posed   Group discussion | **Refs:**  1. OS/Curriculum  2.Learning guides  Etc | **Knowledge**   * Practical exercises * Oral questioning * Written test     **Skills**  1. observation  **Attitudes**  1. observation |  |
| 3 | 3(4hrs) | | | Computer parts | *Identify basic computer components (CPU, RAM, motherboard, storage devices, etc.)*  *Introduction to peripherals (keyboard, mouse, monitor, etc.)*  *Explanation of input and output devices* | | * Give notes * Poses questions on terms applied * Presentation on basic computer components | * give responses to questions posed * Group discussion on the role of each component * Identify and label components on a computer system | **Refs:**  1. OS/Curriculum  2.Learning guides  Etc  3. Computer Hardware Maintenance authored by Stephen Rood published by Butterworth- Heinemann  **Training Aids:**  Laptops  Desktops  Projector  Toolkit | **Knowledge**   * Practical exercises * Oral questioning * Written test     **Skills**  1. observation  **Attitudes**  1. observation  2. third party reports  3. external assessors |  |
| 4 | 4(4hrs) | | | Computer parts | *Identify basic computer components (CPU, RAM, motherboard, storage devices, etc.)*  *Introduction to peripherals (keyboard, mouse, monitor, etc.)*  *Explanation of input and output devices* | | * Give notes * Poses questions on terms applied * Presentation on basic computer components | * give responses to questions posed * Group discussion on the role of each component * Identify and label components on a computer system | **Refs:**  1. OS/Curriculum  2.Learning guides  Etc  3. Computer Hardware Maintenance authored by Stephen Rood published by Butterworth- Heinemann  **Training Aids:**  Laptops  Desktops  Projector  Toolkit | **Knowledge**   * Practical exercises * Oral questioning * Written test     **Skills**  1. observation  **Attitudes**  1. observation  2. third party reports  3. external assessors |  |
| 5 | 5(4hrs) | | | Computer Architecture | *Understanding the architecture of a computer system*  *Overview of the motherboard and its components*  *Introduction to BIOS/UEFI* | | * Give notes * Demonstration of motherboard components * Poses questions on terms applied | * give responses to questions posed * Interactive session exploring motherboard components | 1. OS/Curriculum  2.Learning guides  etc  3. Computer Hardware Maintenance authored by Stephen Rood published by Butterworth- Heinemann  **Training Aids:**  Laptops  Desktops  Projector  Toolkit | **Knowledge**   * Practical exercises * Oral questioning * Written test     **Skills**  1. observation  2. portfolio  **Attitudes**  1. observation  2. third party reports  3. external assessors |  |
| 6 | 6(4hrs) | | | Storage Devices and File Systems | *Types of storage devices (HDD, SSD, etc.)*  *File systems (NTFS, FAT32, etc.)*  *Disk management and troubleshooting* | | * Give notes * Pose questions on definitions * Presentation on types of storage devices | * give responses to questions posed * Taking notes * Small group discussion on different file systems * Perform Disk management on computers | 1. OS/Curriculum  2.Learning guides  Etc  **Training Aids:**  Laptops  Desktops  Projector | **Knowledge**   * Practical exercises * Oral questioning * Written test     **Skills**  1. observation  2. developed tools  3. portfolio  Analytical skills  **Attitudes**  1. observation  2. third party reports  3. external assessors |  |
| 7 | 7(4hrs) | | | Software Installation and Maintenance | Operating Systems  *Overview of popular operating systems* (*Windows, Linux, MacOS)*  *Installation and upgrading procedures*  *Basics of operating system troubleshooting*  Software Installation and Updates  *Installing and updating software applications*  *Managing device drivers*  *Introduction to antivirus and anti-malware tools* | | * Give notes * Overview of popular operating systems * Demonstration of software installation procedures | * give responses to questions posed * Research and presentation on a chosen operating system * Perform OS installation on computers * installing and updating ***software*** applications * Assignment | 1. OS/Curriculum  2.Learning guides  Etc  3. Computer Hardware Maintenance authored by Stephen Rood published by Butterworth- Heinemann  **Training Aids:**  Laptops  Desktops  Projector | **Knowledge**  2. written    **Skills**  1. observation  2. project report  3. portfolio  Interpersonal skills  **Attitudes**  1. observation  2. third party reports  3. externa assessor |  |
| 8 | 8(4hrs) | | | Troubleshooting and Diagnostics | Common Hardware Issues  *Identifying and troubleshooting common hardware problems*  *RAM, CPU, and motherboard diagnostics*  *Basic understanding of power supply issues* | | * Case studies on hardware problems * Give notes * Pose questions on definitions | * give responses to questions posed * Group-based troubleshooting scenarios | 1. OS/Curriculim  2.Learning guides  Etc  3. Computer Hardware Maintenance authored by Stephen Rood published by Butterworth- Heinemann  **Training Aids:**  Laptops  Desktops  Projector  Toolkit | **Knowledge**  2. written    **Skills**  1. observation  3. portfolio  **Attitudes**  1. observation  2. third party reports  3. externa assessor |  |
| 9 | 9(4hrs) | | | Troubleshooting and Diagnostics | Networking and Connectivity Issues  *Basic networking concepts*  *Troubleshooting network connectivity problems* | | * Give notes * Pose questions on definitions * Basics of networking and common issues | * give responses to questions posed * Hands-on network troubleshooting | 1. OS/Curriculum  2.Learning guides  Etc  3. Computer Hardware Maintenance authored by Stephen Rood published by Butterworth- Heinemann  **Training Aids:**  Laptops  Desktops  Projector  Toolkit  Internet | **Knowledge**  1. oral questioning  2. written questions    **Skills**  1. observation  2. developed tools  3. portfolio  **Attitudes**  1. observation  2. third party reports  3. external assessors |  |
| 10 | 10(4hrs) | | | Preventive Maintenance and Security | Routine Maintenance Tasks  *Cleaning and preventive maintenance*  *Backup strategies and data recovery*  *System imaging and restoration.* | | * Give notes * Pose questions on definitions and tools * Presentation on preventive maintenance | * give responses to questions posed * Develop a routine maintenance checklist | Laptops  Desktops  Projector  Toolkit  Internet | **Knowledge**  1. oral questioning  2. written questions    **Skills**  1. observation  2. developed tools  3. portfolio  **Attitudes**  1. observation  2. third party reports  3. external assessors |  |

PREPARED BY……………………………..DATE…………………………SIGN……………

VERIFIED BY………………………………..DATE…………………………..SIGN……….

APPROVED BY……………………………...DATE…………………………...SIGN…………