



COMPETENCY BASED CURRICULUM

FOR

INFORMATION COMMUNICATION TECHNOLOGY

KNQF LEVEL 5

PROGRAMME ISCED CODE: 061 2454A

COMPUTER REPAIR AND MAINTENANCE

UNIT CODE: 0714 351 04A

Duration of Unit: 200 Hours

Relationship to Occupational Standards

This unit addresses the Unit of Competency: Perform Computer Repair and Maintenance

Unit Description

This unit covers the competencies required for performing computer repair and maintenance. It involves performing computer troubleshooting, repairing faulty components, testing computer component functionality and performing computer maintenance.

Summary of Learning Outcomes

Learning Outcomes	Durations (Hours)
1. Perform computer troubleshooting	50
2. Repair faulty components.	60
3. Test computer component functionality	60
4. Perform computer maintenance	30
Total Hours	200

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Methods
1. Perform computer troubleshooting	1.1. User data assessment 1.1.1. Introduction to computer repair and maintenance 1.1.2. Documenting faulty computer user data 1.2. Computer problems identification	<ul style="list-style-type: none">• Practical assessment• Project• Observation Checklist

	<p>1.2.1. Computer troubleshooting approaches</p> <p>1.2.2. Basic computer hardware faults</p> <p>1.2.3. Methods of information gathering</p> <p>1.2.4. User data analysis</p> <p>1.3. Determining solution to the problem</p> <p>1.3.1. Computer hardware faults remedies</p> <p>1.3.2. Test hypothesis</p> <p>1.3.3. Problem Identification</p> <p>1.3.4. Documentation of solution</p>	<ul style="list-style-type: none"> • Product Checklist • Written assessment • Portfolio of evidence
2. Repair faulty components.	<p>2.1 Selection of computer components for replacement</p> <p>2.1.1 Computer hardware components</p> <p>2.1.1.1 Factors to consider in selecting computer components</p> <p>2.1.1.2 computer hardware components parts acquisition</p> <p>2.2 Assembly of tools for repairing or replacing</p> <p>2.2.1 Computer repair and maintenance tools</p> <p>2.2.1.1 Straight-head screwdriver, large and small</p> <p>2.2.1.2 Phillips-head screwdriver, large and small</p> <p>2.2.1.3 Tweezers or part retriever</p> <p>2.2.1.4 Needle-nosed pliers</p> <p>2.2.1.5 Wire cutters</p> <p>2.2.1.6 Chip extractor</p> <p>2.2.1.7 Hex wrench set</p> <p>2.2.1.8 Torx screwdriver</p>	<ul style="list-style-type: none"> • Practical assessment • Project • Observation Checklist • Product Checklist • Written assessment • Portfolio of evidence

	<p>2.3 Observation of Safety procedures</p> <p>2.3.1 Safety measures and procedures</p> <p>2.3.1.1 Personal Protective Equipment's</p> <p>2.3.1.2 Proper use of tools and equipment</p> <p>2.3.1.3 Fire safety</p> <p>2.3.1.4 Classes of fires</p> <p>2.3.1.5 Fire extinguishers</p> <p>2.3.1.6 Emergency procedures</p> <p>2.3.1.7 First AID kit</p> <p>2.3.1.8 Emergency contact</p> <p>2.3.1.9 Contingency measures</p> <p>2.4 Repair and replacing computer components</p> <p>2.4.1 Computer components Instruction manuals</p> <p>2.4.2 Computer components disassembly process</p> <p>2.4.3 Reassembling repaired or replaced computer components</p> <p>2.5 Disposing faulty or obsolete computer hardware components</p> <p>2.5.1 Pollution</p> <p>2.5.2 E- waste</p> <p>2.5.3 Hazards</p> <p>2.5.4 Types of E-waste</p> <p>2.5.5 Proper disposal methods</p>	
3. Test computer component functionality	<p>3.1 Performing POST on computer</p> <p>3.2 Performing computer component test</p> <p>3.2.1 Importance of testing</p> <p>3.2.2 Testing techniques</p> <p>3.2.2.1 Testing of repaired or replaced components</p>	<ul style="list-style-type: none"> • Practical assessment • Project • Observation Checklist

	3.2.3 Evaluation of test Results 3.3 Computer component's functionality report 3.3.1 Generation of test results report	<ul style="list-style-type: none"> • Product Checklist • Written assessment • Portfolio of evidence
4. Perform computer maintenance	4.1 Computer maintenance scheduling 4.1.1 Introduction to computer maintenance 4.1.1.1 Definition of computer maintenance 4.1.1.2 Importance of computer maintenance 4.1.2 Types of computer maintenance 4.1.3 Prepare computer maintenance schedule 4.2 Performing computer maintenance 4.2.1 Computer maintenance utilities 4.2.2 Uses of computer maintenance utilities 4.2.3 Perform computer maintenance 4.3 Computer maintenance report 4.3.1 Importance of computer maintenance report 4.3.2 Components of computer maintenance report	<ul style="list-style-type: none"> • Practical assessment • Project • Observation Checklist • Product Checklist • Written assessment • Portfolio of evidence

Suggested Delivery Methods

- Instructor led facilitation using active learning strategies
- Demonstration by trainer
- Practical work by trainee
- Viewing of related videos
- Group discussions

- Direct instructions

Recommended Resources for 25 Trainees

S/No.	Category/Item	Description/ Specifications	Quantity	Recommended Ratio (Trainee: Item)
A	Learning Materials			
1.	Textbooks	For trainee's use	5 pcs	5:1
2.	Installation manuals	For trainers' use	5 pcs	5:1
3.	Flip Charts	For trainer's use	5 pcs	5:1
4.	PowerPoint presentations	For trainer's use		
B	Learning Facilities & infrastructure			
5.	Lecture/theory room	For training	1	25:1
6.	Computer Laboratory	For training	1	25:1
C	Consumable materials			
7.	Printing papers	For printing	1 ream	1:20
8.	Foolscaps	For writing	1 ream	
9.	Toners	For printers	2 pcs	13:1
10.	Assorted colour of whiteboard markers	For trainer's use		
D	Tools and Equipment			
11.	Computers	For training	25 pcs	1:1

12.	Projector	For trainer's use	1 pcs	25:1
13.	Printers	For printing	2 pcs	13:1
14.	Whiteboard	For trainer's use	1 pcs	25:1
15.	Flash drives	For sharing data	5 pcs	5:1
16.	1 External Hard drive	For storing data	1 pcs	25:1
17.	Computer Repair Tool box	For repair	5	5:1