

COMPUTER REPAIR AND MAINTENANCE

UNIT CODE: IT/CU/ICTA/CR/03/4/B

Relationship to Occupational Standards

This unit addresses the unit of competency: Perform Computer Repair and Maintenance

Duration of Unit: 100 hours

Unit Description:

This unit specifies competencies required to perform computer repair and Maintenance. It includes, assemble and disassembling faulty components, performing troubleshooting repair/replace and reassembling components, testing computer functionality and upgrading computer software/hardware.

Summary of Learning Outcomes:

1. Assemble and Disassemble Computer Components
2. Troubleshoot Computer Components
3. Repair/replace and reassemble components
4. Test computer/component functionality
5. Upgrade computer hardware

Learning Outcomes, Content and Suggested Assessment Methods

Learning Outcome	Content	Suggested Assessment Method
1. Disassemble faulty components	<ul style="list-style-type: none">• Tools for disassembling• Procedures and techniques for disassembling• Repair or replace and reassemble components	<ul style="list-style-type: none">• Practical exercises• Oral questioning• Written test• Learner portfolio of evidence.
2. Perform troubleshooting	<ul style="list-style-type: none">• Identification of Computer parts• Assembling of computer maintenance tools• Theory of probable cause• Assembling and disassembling process• Test of theory of probable cause	<ul style="list-style-type: none">• Practical exercises• Oral questioning• Written test• Learner portfolio of evidence.

	<ul style="list-style-type: none"> • Problem identification • Appropriate solutions 	
3. Repair/Replace and reassemble components	<ul style="list-style-type: none"> • Determine components to replace or repair • Procedures and Techniques for reassembling • Component testing • Repair/replace report 	<ul style="list-style-type: none"> • Practical exercises • Oral questioning • Written test • Learner portfolio of evidence.
4. Test computer functionality	<ul style="list-style-type: none"> • Identify computer testing tools • Testing techniques are identified • Perform computer test functionality • status report 	<ul style="list-style-type: none"> • Practical exercises • Oral questioning • Written test • Learner portfolio of evidence.
5. Upgrade computer software/hardware	<ul style="list-style-type: none"> • Determine Reasons of upgrading • Identify procedures and techniques for upgrading • Test functionality of the upgraded software/hardware 	<ul style="list-style-type: none"> • Practical exercises • Oral questioning • Written test • Learner portfolio of evidence

Suggested Methods of Delivery

- Presentations and practical demonstrations by trainer;
- Guided learner activities and research to develop underpinning knowledge;
- Supervised activities and projects in a workshop;

The delivery may also be supplemented and enhanced by the following, if the opportunity allows:

- Visiting lecturer/trainer from the ICT sector;
- Industrial visits.

Recommended Resources

Tools

- Straight-head screwdriver, large and small.
- Phillips-head screwdriver, large and small.
- Tweezers or part retriever.
- Needle-nosed pliers.
- Wire cutters.
- Chip extractor.
- Hex wrench set.
- Torx screwdriver

Equipment

- Computer
- Tool box

Materials and supplies

Digital instructional material including DVDs and CDs

Consumables for service and repair of computer including:

- Cleaning materials
- Hand cleaner
- Dusters

Reference materials

- Manufacturers manuals