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| **Qualification details** | | | |
| **Training Package code and title** | **UEE Electrotechnology Training Package (Release 2.0)** | | |
| **Qualification National Code & Title:** | **UEE21920** **– Certificate II in Electronics** | **State**  **code:** | **BFN1** |
| **Qualification National Code & Title:** | **UEE20520 – Certificate II in Computer Assembly and Repair** | **State**  **code:** | **BFP7** |
| **Qualification National Code & Title:** | **UEE40720 – Certificate IV in Electronics and**  **Communications** | **State**  **code:** | **BFP4** |
| **Qualification National Code & Title:** | **UEE40120 – Certificate IV in**  **Computer Systems** | **State**  **code:** | **BFL8** |
| **Qualification National Code & Title:** | **UEE50520 – Diploma of Electronics and Communications Engineering** | **State**  **code:** | **BFP5** |
| **Qualification National Code & Title:** | **UEE50120 – Diploma of**  **Computer Systems Engineering** | **State**  **code:** | **BFQ6** |

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| **Unit of competence (UoC) details** | | | |
| **Unit National code & title** | UEECS0003 - Assemble, set up and test computing devices (Old unit UEENEED102A)  UEECS0022 - Install and configure a client computer operating system and software (Only for CS – Old unit UEENEED143A) | State code | **OBX38**  **OBY95** |

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| **Student Name** | Richard Pountney |
| **Student Declaration** | I declare that the evidence submitted is my own work:  ~~RBP~~  ………………………………………….. |

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| **Assessment details** |
| **Assessment Tool 1**: Practical Assessment |

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| **Assessor Name** | Murali Selvaraj / Saranya Chandrukannan | | | |
| **Assessment Decision** | Satisfactory | | Not Yet Satisfactory | |
| **Assessor Signature** |  | | **Date** | DD/MM/YYYY |
| **Is student eligible for reassessment (Re-sit)?** | No | Yes | **Reassessment Date:** | DD/MM/YYYY |

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| **Feedback to student** | | | |
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| **Feedback from student** | | | |
|  | | | |
| **Student signature** |  | **Date** | DD/MM/YYYY |
| **Assessor signature** | Murali Selvaraj / Saranya Chandrukannan | **Date** | DD/MM/YYYY |

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| **Assessment Type** | Practical Demonstration |
| **Assessment Resource** | * Internet * SMTAFE Blackboard * SMTAFE Lab facility & PC * Microsoft Office suite * SMTAFE tools and equipment * Instruction to student (this document) * Workshop conditions (PPE as necessary) * Range of hand tools * Enterprise procedures |
| **Assessment Conditions** | * This is an individual assessment. No discussion is allowed with your peers. * Switch off your mobile phones * The students must complete all the given tasks * Complete the listed tasks within 3 hours * Seek lecturer’s feedback after completion of each step and before proceeding to the next step. * Students may refer to their notes when completing this assessment and can access Blackboard as a resource. * Your lecturer will observe your compliance with OSH requirements, good housekeeping practice (safe work methods), appropriate hardware and software selection, component recognition of use of software tools, and programming logic methods. * Report to your lecturer once work is completed. |
| **Prerequisite Units** | UEECD0007 Apply Occupational Health Safety regulations, codes and practices in the workplace. |
| **Assessment Instructions to Student** | **You are required to:**   * Read through the instructions and appendix information carefully, before beginning the task to ensure you fully understand the requirements. * The student will receive feedback from the assessor within one week after the project submission. * The student has access to a second attempt at the assessment during week 10 (if re-sit is identified by your lecturer). |
|  |
| **Location** | South Metropolitan TAFE, Thornlie Campus, 8 Block, 8G27 |
| **When** | Session 4 |
| **Duration** | 3 hours to complete all the listed tasks and submit the report. |
| **Submission Mode** | Online submission to Blackboard LMS |
| **Expected Deliverables** | . 1. Completion of AT1 practical Assessment report  2. Completion of observation checklist  3. Word, Excel and Visio work files. |

**Assessment Tool 1: Instructions and tasks description**

**Project Task Description:**

The students are expected to perform the following tasks under supervision, by following predetermined safety standards (Refer Appendix). The required skills for this unit will be assessed, based on demonstration of these tasks, against the observation checklist items. Read through the instructions carefully before beginning the task to ensure you fully understand the requirements.

**AT1 Assessment Report requirements:**

You are required to create a visual flowchart document using Microsoft Visio, which details the procedure for:

Part A:

* Starting a computer
* Safely shutting down the PC.
* A copy of your completed document is required to be emailed to your lecturer.

Part B:

* Complete mind map in Visio tool illustrating OHS practices to be followed while working in computers

**Visio:**

* You are required to create a flowchart for capturing steps involved in the Windows login process.
* A completed copy of your document is required to be printed out and handed to your lecturer.

**Quality requirements:**

**Visio:**

* The filename must be: Visio\_<StudentName>.vsd
* All fonts should be “Calibri” with a font size of 11

**Expected Deliverables:**

* AT1\_PracticalAssessment\_Report.docx
* Visio\_<StudentName>.vsd

**General requirements:**

* On-screen instructions in relation to any anomaly, such as a virus warning are followed.
* Help directory is used to resolve any straightforward start up or access issues or anomalies. The students may refer to their notes, textbook and/or access further documentation supplied in class for completing this assessment
* The student must clean the worksite, after the demonstration is complete, and returns tools and materials to their appropriate storage place.
* Enterprise procedures: Refer to Appendix sections.

**Documents Storage Requirements:**

* Completed deliverable documents must be submitted (stored) under the AT1\_PracticalAssessment submission link in Blackboard.

**Appendix A: Practical Task OHS Prestart Procedures**

* The student will need to obtain OHS policy, access permit, clearances and isolation permissions from the assessor.
* The student will follow safe work methods, and methods for controlling risks must be obtained, read and understood prior to undertaking the activity.
* The student is to prepare for electrical and non-electrical isolation to prevent creation of hazards relating to the computer equipment according to procedures.
* Tools and equipment needed for the work must be checked for safety before you use them and correct functionality according to established procedures and regulatory requirements.

**Appendix B: Flowchart drawing guidelines (Enterprise Procedure)**

### **Starting and Ending Points**

* Every [flowchart](https://www.edrawsoft.com/flowchart-definition.html) must have starting and ending points. They are represented by rounded rectangles or ellipses, with the words "Start" and "End" inside. Since the process may have several different results, depending on the decisions made during the flow, the flowchart can have several possible endpoints, with a circle or oval representing each endpoint. Because you don't know how much space you'll need, begin by drawing the "Start" shape and draw the "End" symbol last.



### **Actions in Flowchart**

* A rectangle stands for an action or operation that must be taken to move to the next step in the process. The process itself and the variables involved are written inside the shape. For input and output, use parallelograms. The rectangle often contains an action verb, cuing the user as to the action to take. For example, the human resources management may contain actions such as "Interview the applicants," "Recruit" or "Evaluate employee's performance."

### **Connectors and Arrows of Flowchart**

* The lines with arrows indicate the workflow through the process and connect each process. The reader follows the arrows from the start, usually starting from the top down or from left to right, through each input and decision point, until the process reaches the end point. If you draw flowcharts manually, edit shapes and texts before drawing connectors. In other words, before you connect shapes, check and make sure that all steps have been added so that you won't have to make modifications frequently.

### **Common Elements**

* Use a diamond to stand for decision. Write the specific conditions near the arrows leading from the conditional diamond, which will often be a simple "TRUE" and "FALSE." Where necessary, supplement conditionals with logical "OR" (circles with plus "+" symbols inside) and "AND" (circles with an "x" inside) operators.

**Appendix C: Safety precautions, when working with computer systems**

**General Safety**

Before working on any electronics, consider following these basic safety precautions to help reduce any hazards.

* Remove any electronic equipment you’re testing or working on from the power source.
* Never assume the power circuit is off. Test and test again with a voltmeter to confirm.
* Remove fuses and replace them only after the power to the circuit is disconnected.
* Don’t connect power to a circuit until you’re done working on it and rechecked the work.
* Always ensure that all electronics equipment is properly grounded
* If it’s damaged, replace it. For instance, replace cables instead of repairing with insulating tape.
* Always use the right electronics repair and maintenance tools.
* Always return covers after removing them to reduce the risk of electric shock.
* Make sure your circuit is not overloaded.
* Always have safety equipment like a fire extinguisher, a basic first aid kit and a mobile phone nearby.

**Personal Safety**

It’s important to ensure that you’re safe when working on electronic circuits. Here are some personal safety precautions to keep in mind:

* Always keep your work area dry.
* Always work in a well-ventilated area.
* Don’t wear flapping or loose clothing when working.
* Don’t work with metallic jewellery on your hands like watches, rings and bracelets.
* Don’t use bare hands to remove hot parts.
* Always wear non-conductive shoes.
* Always wear insulator gloves in your hands when carrying out repairs.
* When removing high-voltage charges on capacitors, always use a shorting stick.
* Don’t hold the test prods when measuring voltage over 300V.
* Always remove power to a circuit before connecting alligator clips.
* Always wear safety goggles.
* Be careful when handling large capacitors as they can still hold high voltage even after you’ve disconnected the circuit from power.

**High Voltage Safety**

One mistake that electronics experts make when doing repairs or maintenance work is assuming routine safety procedures after getting all too familiar with their work. It’s important to know that most electronic equipment use high-voltage that is dangerous and can be fatal. Always follow these safety precautions when working on or near high-voltage circuits.

* Don’t work on electronic equipment or make repairs with high voltage on.
* Don’t take chances doing what you’re not sure about.
* Consider using an isolation transformer when working on AC powered electronic circuits or equipment.
* Never tamper with interlocks.
* Don’t ground yourself: Make it a practice to use only one hand when connecting equipment to an electronic circuit.

**Fire Safety Precautions**

* When working with electronic equipment, there is often a risk of fire caused by a short circuit or other reason. Follow these precautionary steps:
* Avoid anything that would cause a fire around your working area like paper, cloth or other combustible materials.
* Look out for damaged wire insulation, overheating of electronic equipment, damaged circuit boards and corrosive components like batteries.
* If there is a burning smell on your electronic equipment, disconnect the power source.
* If there is a fire, use a no conducting dry powder or CO2 fire extinguisher.
* Always check your circuit to be sure that everything is okay after repairs or maintenance before connecting power.

**Electric Shock**

* One of the major hazards when working with electronic equipment is electric shock. To avoid this, you should take a few safety precautions, including:
* Always read safety procedures that come with every electronic equipment you’re about to test or work on.
* Recheck all wires for bad connections
* Always make sure that all parts of electronic equipment are well-mounted to prevent accidents.
* Keep electronic equipment away from water and other liquids
* Always check for signs of wear, defects and fraying on electronic equipment cables, cords and connectors.
* Use special safety rubber gloves and shoes.

**Appendix D: OHS risk control measures and procedures in relation to computer and keyboard**

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