Australian Government

Assessment Requirements for UEECD0040 Solve basic problems electronic and digital equipment and circuits

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Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least two separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (WHS/OHS) requirements, including using risk control measures
- checking and isolating circuits in accordance with WHS/OHS requirements and workplace procedures
- completing work and documenting problem-solving activities
- dealing with unplanned situations
- deducing equipment behaviour correctly and accurately
- identifying and accessing sources of materials required for work
- observing equipment behaviour and measured values
- obtaining and checking tools, equipment and testing devices
- obtaining problem scope
- preparing to work on electronic and digital equipment
- providing written justification for the solutions to problems
- solving electronic and digital equipment problems without damage using sustainable energy practices
- taking and recording measurements correctly and accurately using relevant measuring equipment
- testing and measuring live work in accordance with WHS/OHS requirements and workplace procedures
- using problem-solving methods.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- alternating currents (a.c.) and waveforms
- analogue to digital conversion
- analogue versus digital

- basic electronic components
- basic logic
- batteries
- capacitance and inductance
- codes
- data manipulation
- digital to analogue conversion
- electromagnetic interference
- electromagnetic waves and signals
- fundamental concepts
- isolation procedures
- number systems
- problem-solving techniques
- relevant industry standards
- relevant manufacturer specifications and operating procedures
- relevant job safety assessments or risk mitigation processes
- relevant tools, equipment and testing devices
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and procedures
- relevant electronic and digital equipment problems
- sustainable energy principles
- techniques in the use of multimeters
- testing and measuring live work.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated suitable workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, tools, facilities and equipment currently used in industry
- resources that reflect current industry practices in relation to solving basic problems in electronic and digital equipment

- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6