

**NEW ZEALAND MARITIME SCHOOL**

**NZ Diploma Electro-technology**

**Year 1 ETO Cadets, ETR NZ Cert of crewing, 2019.**

**NZ2511-02.**

**(STCW-78 III/1, as amended in 2010)**

Course 942.469

Electrical and Electronic Measuring Equipment, Basic Electrical Fault Finding

***Research each of the 2 Learning Outcomes and answer with your interpretation.***

***Use reading material provided on Canvas, library material or other suitable sources. Where possible provide reference to the sources. Email back to the tutor when complete.***

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Student Name:

Student ID:

Date:

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**Aim:-** Demonstrate knowledge and skills of safety requirements for working on shipboard electrical systems

Outcome 1 **Demonstrate basic knowledge of the implementation of satisfactory safety procedures**

Research into these topics and produce a structured assignment ( *including references to web sites and photos/schematics* ) to demonstrate your ***basic*** understanding of the construction and operational characteristics of the following:-

Shipboard LV and HV AC – generating – distribution and propulsion systems

Ships onboard DC grid – hybrid AC/DC - generating – distribution and propulsion systems

Your thoughts on future technologies for shipboard electrical - generating – distribution and propulsion systems

Examine a small selection of typical shipboard electrical equipment (eg – two engine room machines or equipment) to show a basic understanding of construction and operation characteristics.

Outcome 2 **Demonstrating the use of appropriate test equipment and accurately interpret results**

This outcome is covered by a written report:-

Examine the condition of a typical Three phase squirrel cage induction motor is evaluated using measuring instruments, use photos to support your findings.

Outcome 3 **Demonstrate basic knowledge of procedures for the conduct of repair and maintenance in accordance with manuals and good practice**

This section is covered through practice tasks in the Marine Worksop at Mahurangi campus, it also takes into account the machine-shop exercises completed at MIT south campus in March.

Demonstrating a basic understanding for use of machine tools, hand tools and power tools

**End of assessment**