

Maintenance of Physiotherapy Equipment (Level 2)

Name of the Module : Maintenance of Physiotherapy Equipment (Level 2)
Sector : Electronics
Code : ELC218
Duration : 120 Hrs
Entry qualification : 8th std pass with age atleast 14 years.+ Level 1 certification in X-Ray Machine or Persons with work experience in maintenance of Physiotherapy Equipment or Certification in “BASIC ELECTRONICS” module

Terminal competency:

- Should able to use multimeter
- Should be able to test electrical earth, test & replace faulty power chord & cables
- Test fuse in the equipment and replace them when required
- Should be able to do identify the faulty PCB's & Fuses Tens, Tnterferential therapy Machine, short-wave diathermy, ultrasound diathermy machine
- Should able to replace fused bulb in UV light
- Test components and replace faulty electronic components

Contents:

Practical Competencies	Underpinning Knowledge (Theory)
<i>Practice procedures for safety and health hazards measures</i>	<i>Electrical and personal safety, dangers and preventions</i>
<p>a. Operate Multimeter & Measure Resistance, voltage, current</p> <p>b. Use tools & Perform soldering and de-soldering</p> <p>c. Perform power chord maintenance of equipments</p> <p>d. Test earth using test lamp or multimeter</p> <p>e. Perform cable maintenance</p> <p>f. Open equipment, Remove, test and replace blown fuse in the PCB</p>	<p>Programme Contents:</p> <ul style="list-style-type: none"> • Multimeter and its application • Basics of electricity – define DC, AC // practical measuring units of voltage, current, resisistance. • Testing of earth using test lamp • Testing of earth using multimeter • fuse – types, use, testing • Basic Electronics – passive and active components, testing of components, • Op-Amp – Introduction, applications, construction, differential amplifier, biomedical amplifier, filters – integrator, differentiator, notch filters, comparators • Digital electronics – gates and its application, multiplexers, de-multiplexers, counters • Replacement of fused lamp in UV light • TENS - block diagram, Common PCB's and identification of PCB's • Interferential Therapy Machine - block diagram, Common PCB's and identification of PCB's

Practical Competencies	Underpinning Knowledge (Theory)
	<ul style="list-style-type: none"><li data-bbox="784 170 1334 260">• Short-wave diathermy - block diagram, Common PCB's and identification of PCB's<li data-bbox="784 264 1334 354">• Ultrasound diathermy - block diagram, Common PCB's and identification of PCB's

Resources

1. Tens
2. Interferential Therapy Machine
3. Short-Wave Diathermy
4. Ultrasound Diathermy