

## GENERAL INFORMATION FOR REPAIR AND MAINTENANCE OF REFRIGERATOR

<b>Name of sector</b>	<b>Refrigeration &amp; Air Conditioning</b>
<b>Name of Module</b>	<b>REPAIR AND MAINTENANCE OF REFRIGERATOR</b>
<b>MES Code</b>	<b>REF703</b>
<b>Competency as per N C O Code</b>	
<b>Duration of Course</b>	<b>500 Hrs</b>
<b>Entry qualification of trainee</b>	<b>VIII Std</b>
<b>Unit size ( No of trainees)</b>	<b>20</b>
<b>Power norms</b>	<b>02KW</b>
<b>Space Norms ( Workshop and Class room )</b>	60 sq.m ( Minimum size of one side to be 04 m)
<b>Instructors Qualification</b>	Degree in Mechanical Engineering with one year Experience <b>OR</b> Diploma in Mechanical Engineering with two year Experience <b>OR</b> NTC/ NAC in RAC Trade with three years of Experience
<b>Desirable</b>	<b>CITC</b>

## **COURSE CONTENT FOR REPAIR AND MAINTENANCE OF REFRIGERATOR**

<b>Under pinning Knowledge ( Theory)</b>	<b>Practical Competencies</b>
<ul style="list-style-type: none"> <li>Safety Precautions, study the function and working of refrigeration tools, Instruments &amp; Equipments.</li> </ul>	<ul style="list-style-type: none"> <li>Familiarization of refrigeration tools, Instruments &amp; Equipments.</li> </ul>

<ul style="list-style-type: none"> <li>• Study the construction and working of V.C. Cycle of refrigerator.</li> <li>• Study the current, voltage, resistance measuring.</li> <li>• Study the open circuit, short circuit and earth testing.</li> <li>• Study the different types of motors used in refrigerator.</li> <li>• Study the different types of relays, OLP, thermostat, heaters, fan, timer used in refrigerator.</li> <li>• Study compressor, condenser, capillary tube, drier, and evaporator.</li> <li>• Refrigerant used in refrigerator</li> <li>• Study the trouble shooting in refrigerator.</li> <li>• Study the types of refrigerator.</li> <li>• Study the specification of refrigerator</li> <li>• Faults and remedies of refrigerator.</li> <li>• Care and maintenance of refrigerator.</li> </ul>	<ul style="list-style-type: none"> <li>• Tube cutting, bending, flaring, swaging, brazing, welding.</li> <li>• Measuring Current, voltage and resistance.</li> <li>• Check open circuit, short circuit and earth of hermetic compressor.</li> <li>• Identify starting , running, common terminal</li> <li>• Check relay, OLP, thermostat, door switch, refrigerator Bulb.</li> <li>• Check the wiring circuit of refrigerator.</li> <li>• Check the efficiency of hermetic compressor.</li> <li>• Dismantle and Assemble hermetic Compressor.</li> <li>• Identify the trouble and rectification</li> <li>• De scaling refrigerator condenser.</li> <li>• Flushing Condenser and Evaporator.</li> <li>• Leak Testing, Evacuation, Gas Charging In Refrigerator.</li> <li>• Servicing the refrigerator.</li> <li>• Check the performance of refrigerator.</li> <li>• Installation of Refrigerator.</li> </ul>
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### LIST OF TOOLS , INSTRUMENTS , EQUIPMENTS AND FURNITURE

1,	File	5 no's
2,	Hammer	5 no's
3,	screw driver	5 no's
4,	Combination pliers	5 no's
5,	Line tester	5 no's
6,	Soldering Iron	5 no's
7,	Bench vice	2 no's
8,	Hack saw	5 no's
9,	Pipe wrench	5 no's
10	Snip	5 no's
12,	Tube cutter	5 no's

13,	Tube Bender	5 no's
14,	Swaging tool	5 no's
15,	Pinching tool	5 no's
16,	Flaring tool	5 no's
17,	Gauge manifold set	2 no's
18,	Compound gauge	2 no's
19,	Pressure Gauge	2 no's
20,	Volt meter	5 no's
21,	Ammeter	2 no's
22,	Multi meter	2 no's
23,	Tong tester	2nos
24,	Halide torch	1 no's
25,	Thermometer	2 no's
26,	Double end spanner set	2 no's
27,	Ring spanner set	2 no's
28,	Box spanner set	1 no's
30,	Adjustable spanner	5 no's
31,	Nitrogen Cylinder	1 no's
32,	Gas cylinder	2nos
33,	Vacuum pump	1 no's
34,	Gas welding machine	1 no's
35,	Brazing Kit	2 no's
36,	Grinding machine	1 no's
37,	drilling machine	1nos
38,	Refrigerator Single Door	1 no's
39,	Refrigerator Double Door ( frost Free)	1 no's
40,	Steel Locker	2 no's
41,	Work Table	2 no's