

## Appendix-I

Sr. No.	Name of the item with specifications	Qty.
1.	<p><b>Computerised Diesel engine set-up</b></p> <ul style="list-style-type: none"> <li>● Single cylinder, 4 stroke, Diesel engine with Exhaust Gas Recirculation (close loop)</li> <li>● Independently change inlet and exhaust valve timing, Overhead Cam Shaft.</li> <li>● Power: 3-5HP</li> <li>● Engine Speed: 800-1500 rpm</li> <li>● Electric Start</li> <li>● Engine Aspiration: Engine should have the ability to run on both natural and turbo charged mode</li> <li>● Diesel Injection Pressure sensing</li> <li>● Fuel System: CRDI Diesel injection with the ability to change the start of injection, injection duration, injection pressure and multiple injection. Changing of injection parameters should be controlled from the computer.</li> <li>● The engine should be capable to run on other fuel such as LPG, CNG, H2-NG, ethanol blend, methanol etc.</li> <li>● Dynamometer: The Engine Should be coupled with 5 HP Eddy Current Dynamometer with Strain Gauge Loadcell.</li> <li>● Controls : Fuel injection System with controls</li> <li>● Software: Engine Combustion Analysis and performance Software, Fuel injection and control software.</li> <li>● Smoke meter</li> </ul> <p>Measurement range: 0 to 10 FSN (filter smoke number)  Detection limit: 0.002 FSN or 0.02 mg/m<sup>3</sup>  Resolution: 0.001 FSN or 0.01 mg/m<sup>3</sup></p>	01