

## Royal Enfield - Basic & Advance Certificate Course

### Contents

Contents	Duration (Hrs)	Days
<b>Basic of Automobiles</b> <ul style="list-style-type: none"> <li>• Bore</li> <li>• Stroke</li> <li>• Cubic Capacity ( CC)</li> <li>• Compression Ratio</li> <li>• IHP, BHP, FHP</li> <li>• Torque</li> <li>• Ignition Timing</li> <li>• Valve timing</li> <li>• 4 Strokes</li> <li>• Frame Number Explanation</li> <li>• Power Flow in kick Start</li> <li>• Self Start and from Piston to Wheel</li> </ul>	<p>3:30 Hr (9:30 am to 1:00 pm)</p>	Day 1
<b>UCE Engine 350 CC - Theory and Practical</b> <ul style="list-style-type: none"> <li>• What is UCE Engine</li> <li>• Engine Specifications</li> <li>• Parts Identifications</li> <li>• Oil Replacement Process</li> <li>• Dismantling Process</li> <li>• Clutch Function and diagnosis</li> <li>• Breather Circuit</li> <li>• Valve timing setting, cam sleeve Setting and diagnosis</li> <li>• Function of Auto De-compressor</li> <li>• Function of Sprag Clutch and problem Discussion</li> </ul>	<p>2:45 Hr (1:45 pm to 4:30 pm)</p>	
<b>Revision of Day 1</b>  <b>UCE Engine- continue</b> <ul style="list-style-type: none"> <li>• Function of Transmission and Explanation</li> <li>• Practice of Transmission Assembly and Diagnosis</li> <li>• Valve Train and Hydraulic Tappet explanation</li> <li>• Engine Assembly</li> <li>• Lubrication Circuit and related diagnosis</li> <li>• Discussion on different kind of Engine Noise and diagnosis</li> </ul>	<p>2Hr (9:30 am to 11:30 am)</p>	Day 2
<b>Measuring Instruments Theory and Practical on Dismantled Engine and practice</b> <ul style="list-style-type: none"> <li>• Vernier Calliper</li> <li>• Micrometer</li> <li>• Dial gauge</li> <li>• Boar Gauge</li> <li>• Feeler Gauge</li> </ul>	<p>1:30 Hr (11:30 to 1:00 pm)</p>	

<p><b>Interceptor /GT 650 CC Engine</b></p> <ul style="list-style-type: none"> <li>• Engine Specifications</li> <li>• Parts Identification</li> <li>• Engine Cut Section Explanation</li> <li>• Slipper assist clutch explanation</li> <li>• Engine Dismantling</li> <li>• Transmission explanation</li> <li>• Lubrication circuit explanation</li> </ul>	<p>2:45 Hr (1:45 pm to 4:30 pm)</p>	<p>Day 2</p>
<p><b>Revision of Day 2</b></p> <p><b>Interceptor/ GT Engine - Continue</b></p> <ul style="list-style-type: none"> <li>• Bearing grade selection process</li> <li>• Engine Assembly</li> <li>• Angular Torque application</li> <li>• Valve mechanism</li> <li>• Valve timing</li> <li>• Tappet Setting</li> <li>• Diagnosis</li> </ul>	<p>3.30 Hr (9.30 am to 1.00 pm)</p>	<p>Day 3</p>
<p><b>Carburettor</b></p> <ul style="list-style-type: none"> <li>• Types of Carburettor</li> <li>• Working Principal and Function</li> <li>• Explanation of Rich Mixture Lean Mixture</li> <li>• Carburettor Circuits explanation and troubleshooting related to the circuit ( Float Circuit, Choke Circuit ( Starting Circuit), Pilot Circuit, Main Circuit</li> </ul>	<p>1:15 Hr (1:45 pm to 3.00 pm)</p>	<p>Day 3</p>
<p><b>Practical related to Engine</b></p> <ul style="list-style-type: none"> <li>• Engine Compression test</li> <li>• DB meter ( Engine Noise Checking)</li> <li>• Tachometer Usage</li> <li>• Oil Pressure Checking in Interceptor</li> </ul>	<p>1.5 Hr (3:00 pm to 4:30 pm)</p>	<p>Day 3</p>
<p><b>Revision of Day 3</b></p> <p><b>Vehicle Practical – Classic / Himalayan / Interceptor</b></p> <ul style="list-style-type: none"> <li>• Vehicle Specifications</li> <li>• Vehicle Parts Identification</li> <li>• PDI Process and Practice <ul style="list-style-type: none"> <li>○ Accelerator free play Setting and importance</li> <li>○ Clutch free Play setting and Diagnosis</li> <li>○ Chain Slackness Checking, Setting and Diagnosis</li> <li>○ Brake Adjustment</li> <li>○ Other Points</li> </ul> </li> <li>• Braking Systems ( Disc Brake/ Drum Brake) and Diagnosis</li> <li>• ABS System explanation</li> </ul>	<p>3:30 Hr (9:30 am to 1:00 pm)</p>	<p>Day 4</p>



<p><b>EFI ( BS 3 &amp; BS 4)</b></p> <ul style="list-style-type: none"> <li>• ECU Types and Difference between BS3 to BS4</li> <li>• EMS Explanation</li> <li>• Functional Diagram</li> <li>• EFI Components</li> <li>• System Composition</li> <li>• Individual Parts Function &amp; Specification</li> <li>• Explanation of EFI system through Video</li> <li>• Trouble shooting</li> <li>• Relay Functions and Testing Methods</li> </ul>	<p>2 Hr (9.30 am to 11.30 am)</p>	
<p><b>EFI Trouble Shooting BS3 &amp; BS 4</b></p> <ul style="list-style-type: none"> <li>• Visual Methods</li> <li>• Test Pin Methods ( Interceptor also)</li> <li>• Using DOL tool for BS3 &amp; BS4 Bikes malfunctions Diagnostics</li> <li>• Maintenance tips</li> <li>• Ignition Circuit EFI –</li> </ul>	<p>1:30 Hr. (11:30 am to 1:00 pm)</p>	
<ul style="list-style-type: none"> <li>• Ignition Circuit on Wiring Harness</li> <li>• Circuit checking on Vehicle ( Ignition/ Charging/ Lighting/ Starting)</li> </ul>	<p>1 Hr (1:45 pm to 2:45 pm)</p>	
<p><b>Brake out Box Practice</b></p>	<p>1 Hr (2:45 pm to 3.45 pm)</p>	
<p><b>Spark Plug</b></p> <ul style="list-style-type: none"> <li>• Specification ( Gap, Grade)</li> <li>• Type of Spark plug</li> <li>• Spark plug tip Colour and Condition explanation</li> <li>• Spark Colour Explanation</li> <li>• Black smoke/ white Smoke Reasons and trouble shooting</li> <li>• Spark plug cleaning and testing through Machine (Practical)</li> <li>• Instrument Cluster</li> </ul>	<p>0:45 Hr ( 3:45 pm to 4:30 pm)</p>	