

GUJARAT TECHNOLOGICAL UNIVERSITY**BE - SEMESTER-V- EXAMINATION – SUMMER 2016****Subject Code: 150201****Date: 06/05/2016****Subject Name: Automobile Engines****Time: 02:30 PM to 05:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Differentiate between LPG and CNG as fuel for I.C. engine. **07**
(b) Enlist types of engine scavenging and explain any one of them. **07**
- Q.2** (a) Differentiate between carburetors and multi point fuel injection. **07**
(b) Give actual valve timing diagram of a typical C.I. engine and explain why it is different from theoretical valve timing diagram. **07**
- OR**
- (b) Classify the internal combustion engine according to cylinder arrangements, types of ignition and number of stroke. Also Differentiate between 2-stroke & 4-stroke engines. **07**
- Q.3** (a) What is knocking? How it is different in CI engine and SI engine, explain. **07**
(b) Writes notes on good lubricant requirements and additives for lubricants. **07**
- OR**
- Q.3** (a) Define Ignition lag & explain factors affecting delay period in C.I engines. **07**
(b) Distinguish between air and water cooling of an IC engines. **07**
- Q.4** (a) Differentiate between super charger and turbocharger. **07**
(b) Explain the stages of combustion with P- θ diagram in C.I. engines. **07**
- OR**
- Q.4** (a) State the advantages and disadvantages of hydrogen as I.C. engine fuel. **07**
(b) Write notes on lubricating pumps. **07**
- Q.5** (a) Write notes on catalytic convertor. **07**
(b) Explain the Wankel engine with neat sketch. **07**
- OR**
- Q.5** (a) Explain various modern methods and gas chromatography to control air-pollution. **07**
(b) Explain the C I engine fuel feed system with a neat sketch. **07**
