

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
ME- SEMESTER II- EXAMINATION – SUMMER 2015

Subject Code: 2721109

Date: 28/05/2015

Subject Name: Fundamentals of IC Engines and Automobiles

Time: 2:30 PM – 5:00 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) Explain the Air Fuel cycle for petrol engine **07**
(b) Draw and explain the valve timing diagram for Four stroke diesel engine. **07**
- Q.2** (a) Discuss micro processor and micro computer applications in Automobiles. **07**
(b) Discuss in brief combustion chart. **07**
- OR**
- (b) Explain effect of variables on volumetric efficiency. **07**
- Q.3** (a) Discuss valve actuating mechanism. **07**
(b) Discuss design concept of Flywheel and clutch plate of IC Engine. **07**
- OR**
- Q.3** (a) Write down the types of carburetors and discuss problems associated with carburetors. **07**
(b) Explain Distributor type pump in details. **07**
- Q.4** (a) Differentiate between continuous injection system and timed injection system **07**
(b) Write a importance of Stratified Charged engine concepts. **07**
- OR**
- Q.4** (a) Describe with the help of diagram an economizer system using the metering pin. How can it be used for more power? **07**
(b) Write short notes on recent developments in IC Engine. **07**
- Q.5** (a) Discuss four valve and three valve engine technology. **07**
(b) Write a short note on MPFI and CRDI Engines. **07**
- OR**
- Q.5** (a) Explain Electrical system of Automobile with necessary diagram. **07**
(b) Explain the maintenance and troubleshooting of braking system. **07**
