Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – III • EXAMINATION – SUMMER • 2013 Subject code: 732101 Date: 15-05-2013 **Subject Name: Advanced Internal Combustion Engine** Time: 10.30 am - 01.00 pm**Total Marks: 70 Instructions:** 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks. Explain theoretical and actual PV diagram of diesel cycle. 0.1 (a) Explain "Ratings of CI and SI engine fuel". **(b)** Comparison between Battery ignition system & magneto ignition system. Q.2(a) **(b)** What is present state of alcohol for use as an alternative fuel? Compare properties of diesel fuel and vegetable oil. **(b)** Q.3 Explain Stages of combustion in SI engine. (a)

(b) Explain Direct Injection Chambers.

OR

OR

Q.3 (a) Explain Types of combustion chamber in CI engine.(b) What are the Factors affecting knocking in CI engine?07

Q.4 (a) Explain crankcase scavenged two stroke engines with neat sketch.

(b) Different between power & specific output.

otput. 07

Q.4 (a) Explain factor affecting Performance Characteristics of I C Engine. 07

(b) Explain MPFI system. 07

Q.5 (a) Explain EGR system.

(b) Effect of engine emission on human health

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Q.5 (a) Explain catalytic convertor. 07

(b) Explain sources of emission in CI and SI engine. 07

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