Seat No.:	
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GUJARAT TECHNOLOGICAL UNIVERSITY M. E. - SEMESTER – I • EXAMINATION – WINTER • 2014

Sul	bject	code: 711102N Date: 02-12-2014	
Subject Name: Fundamentals of IC Engine and Automobile Time: 10:30 am - 01:00 pm Total Marks: 70			
	Instructions:		
1113		Attempt all questions.	
Q.1	(a) (b)	Explain mixture requirements in S.I engine. Describe multipoint fuel injection system with diagram.	07 07
Q.2	(a) (b)	Explain with a neat sketch the working of multiplate clutch. Write short note on recent developments in I. C. Engine. OR	07 07
	(b)	Briefly explain a typical electronic engine management system.	07
Q.3	(a)	Explain selection of material for piston and write design procedure to design piston head	07
	(b)	Explain Air capacity of four stroke engine OR	07
Q.3	(a)	Discuss in detail the effect of following on fuel air Otto cycle. (i) Burning time losses. (ii) Rubbing friction losses.	07
	(b)	Explain electronic ignition system.	07
Q.4	(a) (b)	Explain working of stratified charge engine Explain with a neat sketch the valve timing diagram for 4 -stroke diesel engine OR	07 07
Q.4	(a) (b)	Explain with a neat sketch the scavenging process in 2-stroke engine Explain with a neat sketch the valve timing diagram for 4 -stroke petrol engine	07 07
Q.5	(a) (b)	Describe fuel injection pump with a neat sketch. Describe with diagram the working of telescopic hydraulic shock absorber. OR	07 07
Q.5	(a)	Classify various steering linkages. Explain with diagram the working of rack and pinion steering system.	07
	(b)	Explain why rich mixture is required for the following: (i) Idling (ii) Maximum Power	07
