Seat No.:	Enrolment No
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GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER- II(New course) • EXAMINATION (Remedial) - WINTER- 2015

Sul	bject	Code: 2721105 Date: 11/12/20	15
Tir	u	Name: High Speed Diesel Engine 30 pm to 5:00 pm Total Marks: 'as:	70
		Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a) (b)	Define combustion. What do you mean by ignition limit for combustion? When specific heat is varying? Explain the effect of variable specific heat on P-V diagram of a Otto cycle.	07 07
Q.2	(a)	Explain supercharging. List different methods of supercharging and explain	07
	(b)	one in detail. Define Turbo Charging. What are the different methods of Turbo- charging? OR	07
	(b)	Why Supercharging is more preferred in CI engine than SI engine?	07
Q.3	(a)	Explain stages of combustion in CI engine with P- diagram.	07
	(b)	Write short note working of divided- combustion chamber with diagram. OR	07
Q.3	(a) (b)	Discuss compression ratio for DI & IDI engine. Compare DI & IDI engine. Explain working of distribution type fuel pump with diagram.	07 07
Q.4	(a) (b)	Define delay period & factors affecting delay period. Why air swirl is more effective in CI engine. Explain different method of generating air swirl in CI engine	07 07
0.4	(a)	OR List latest development in combustion chambers. Explain M- combustion	07
Q.4	(a)	chamber.	U /
	(b)	Explain working of multi fuel engine. State significance of pilot fuel injection.	07
Q.5	(a)	Function of nozzle in CI engine. Enlist different types of nozzle with neat sketch.	07
	(b)	Write short note on dissociation and effect on power loss by dissociation. OR	07
Q.5	(a) (b)	Explain four valve engine & OHC engine in short. Explain special features of agricultural & industrial engine.	07 07
