Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

ME SEMESTER II EXAMINATION – SUMMER 2017

Subject Code: 2721105 Subject Name: High Speed Diesel Engine Time:02:30 PM to 05:00 PM		Code: 2721105 Date: 30/05/20	Date: 30/05/2017 Total Marks: 70	
Ins	truction 1. 2. 3.	Attempt all questions.		
Q.1	(a) (b)	Explain various stages of combustion in diesel engine with figure. Explain necessity and types of air motion in diesel engine.	07 07	
Q.2	(a) (b)	State and explain requirements of good combustion chamber. Make comparision of different types of swirl motion in diesel engine. OR	07 07	
	(b)	Explain air cell combustion chamber with figure.	07	
Q.3	(a) (b)	Explain limitations of supercharging in SI engine. Write short note on M-combustion chamber. OR	07 07	
Q.3	(a) (b)	What is pilot injection? Explain its effect on performance of engine. Give various types of turbochargers. Explain selection criteria of turbocharger	07 07	
Q.4	(a) (b)	Explain role of spray formation and spray direction on combustion. Explain working of various types of injection nozzles with figure. OR	07 07	
Q.4	(a)	Explain importance of quantity of fuel injected pertaining to durability of engine with equation. What is delay period? State and explain factors affecting it	07 07	
Q.5	(b)(a)(b)	What is delay period? State and explain factors affecting it. Explain combustion in dual fuel engines with diagram. Explain distributor pump in detail.	07 07 07	
Q.5	(a) (b)	OR Explain special features of agricultural and industrial engines. Explain various characteristics of a multi fuel engine.	07 07	
