Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME SEMESTER II EXAMINATION – SUMMER 2017

Subject Code: 2721109 **Date: 26/05/2017**

Subject Name: Fundamentals of IC Engines and Automobiles

Time:02:30 PM to 05:00 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)**	Discuss the importance of Microprocessor and micro computer applications in automobiles.	**07**
	(b)	Explain the Automotive electronics Components for engine management system.	**07**
Q.2	**(a)**	Discuss the difference between ideal and actual valve timing diagrams of petrol engine.	**07**
	(b)	Explain why a C.I. engine can operate on higher an air-fuel ratio.	**07**
		OR	
	(b)	What is combustion Chart? Give its Important for Automobile Engineers?	**07**
Q.3	**(a)**	Give brief idea about design concept of cylinder block and flywheel of IC Engine.	**07**
	(b)	What is carburetion and explain any one type of carburettor with neat diagram.	**07**
		OR	
Q.3	**(a)**	Describe valve actuating mechanism.	**07**
	(b)	Write in details about fuel injection system components.	**07**
Q.4	**(a)**	Discuss about Stratified Charged engine.	**07**
	(b)	Discuss about OHC engine.	**07**
		OR	
Q.4	**(a)**	Write a brief note on CRDI system used in IC engine?	**07**
	(b)	Discuss governing methods of IC engine: Hit and Miss method & Quantity governing.	**07**
Q.5	**(a)**	Discuss in details: (i) Low heat rejection engine and (ii) four / three valve engine.	**07**
	(b)	Write a short note on cam less engine.	**07**
		OR	
Q.5	**(a)**	Explain in brief: Testing of Internal combustion engine as per IS Standards	**07**
	(b)	Discuss about tyre construction and tyre designations	**07**

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