Seat No.: _____ *Enrolment No._____*

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – I • EXAMINATION – WINTER • 2013

Subject code: 711102N **Date: 26-12-2013**

Subject Name: Fundamentals of IC Engine and Automobile

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.**

Q.1	**(a)**	Explain microprocessor and micro computer application in automobile?	**07**
	(b)	Explain valve timing diagram of two stroke petrol engine?	**07**
Q.2	**(a)**	List vibration dampers used in IC Engine? Give important of it?	**07**
	(b)	What is Air capacity of engine? Discuss factors affecting it?	**07**
		OR	
	(b)	List engine components? Give important of piston rings and oil ring? Also give name of material used for these rings?	**07**
Q.3	**(a)**	What do you mean by carburation? Explain principal of carburetor with diagram?	**07**
	(b)	Explain solex carburetor in detail?	**07**
		OR	
Q.3	**(a)**	Discuss in detail concept of multipoint fuel injection system?	**07**
	(b)	Discuss injection system components of CI engine?	**07**
Q.4	**(a)**	Describe fuel injector in detail?	**07**
	(b)	Discuss low heat rejection engine?	**07**
		OR	
Q.4	**(a)**	Recent development in IC engine?	**07**
	(b)	Explain, VVT technology in IC engine?	**07**
Q.5	**(a)**	Discuss Automotive electrical system?	**07**
	(b)	Discuss, Latest suspension system used by recent Indian car?	**07**
		OR	
Q.5	**(a)**	Explain tyre troubles and its solution in detail?	**07**
	(b)	Discuss in detail recent automobile steering system?	**07**

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