Seat No.:				
		GUJARAT TECHNOLOGICAL UNIVERSITY ME – SEMESTER II (NEW) – • EXAMINATION – SUMMER 2016		
U			5/2016	
Tin	Subject Name: Automobile Maintenance and pollution Control Time: 10:30 am to 01:00 pm Total Marks: 'Instructions: 1. Attempt all questions. 2. Make suitable assumptions wherever necessary. 3. Figures to the right indicate full marks.		70	
	2.	Make suitable assumptions wherever necessary.		
Q.1	(a) (b)	Explain the different types of Automobile servicing. Give types of Equipment's and tools for garages and service station.	07 07	
Q.2	(a) (b)	What is the need of tyre rotation? Explain Explain frame defects and chassis frame alignment in detail. OR	07 07	
	(b)	Define Engine Tuning. Draw sequential block diagram of engine tune up procedure and explain in brief.	07	
Q.3	(a) (b)	Explain (I) wheel Balancing (II) wheel alignment. What is lubrication chart? Explain in detail OR	07 07	
Q.3	(a)	What are the important properties of engine oil and additives? State the different types of additives commonly used.	07	
	(b)	Describe MPFI system and its trouble shooting.	07	
Q.4	(a)	What are the causes of formation of NOx in petrol engine? Explain the effect of A: F ratio and spark advance on emission of NOx.	07	
	(b)	What is diesel odor? Explain the effect of different factors on the formation of odor in C.I engine.	07	
Q.4	(a)	OR Define smoke and discuss different factors which affect smoke formation in C.I	07	
∵. +	(a)	Define smoke and discuss different factors which affect shoke formation in C.1	U/	

(b) How the automobile emission contribute to Greenhouse Effect? Any effect by

(b) Compare the emission from S.I and C.I engines giving proper explanation for

Describe the EGR device for the control of NOx emission from S.I engine.

(b) Discuss and differentiate European pollution norms and Indian pollution norms

as per Central Motor Vehicle Rules (C.M.V.R.)

using the odd/even formula to reduce the emission? Justify

(a) Write a short note on catalytic converter.

engines.

the same.

Q.5

Q.5

(a)

07

07

07

07

07