GUJARAT TECHNOLOGICAL UNIVERSITY

GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-VIII • EXAMINATION – SUMMER • 2015 Subject Code: 180203 Date:07/05/2015			
Subject Name: Special Purpose Vehicles Time: 10.30AM-01.00PM Total Marks: Instructions: 1. Attempt all questions.			70
	2.		
Q.1	(a)	Write Classification of Special purpose Vehicles giving examples.	07
	(b)	Draw a neat sketch and explain working principles and design considerations for Excavator.	07
Q.2	(a) (b)	Explain in detail types of Road Roller construction. Draw neat sketches. With a neat sketch explain design parameters of Tipper vehicle. OR	07 07
	(b)	Show all the parts of Fork lift truck and explain.	07
Q.3	(a)	What are the instruments deployed generally in a special purpose vehicles.	07
	(b)	Explain specific instruments used in various special purpose vehicles. Draw a complete lay out of tractor and explain details. OR	07
Q.3	(a)	Explain Hydraulic systems and auxiliary systems that can be provided on Tractors.	07
	(b)	Draw neat sketches of accessory attached used in tractors and explain.	07
Q.4	(a) (b)	Explain comparison of Wheel loader and Shovel. Explain the construction of Mobile crane.	07 07
Q.4	(a) (b)	OR Explain the difference between Trailer and semi-trailer. Show tracked vehicles construction to explain details.	07 07
Q.5	(a) (b)	Explain multi axle vehicles purpose, advantages and disadvantages. Explain various configurations of Electric Vehicles and hybrid Electric vehicles.	07 07
Q.5	(a) (b)	OR Explain fifth wheel coupling mechanism. Write the design and construction considerations for a new type of Special purpose vehicle. Write step by step process you would like to follow.	07 07
