GUJARAT TECHNOLOGICAL UNIVERSITY BE – SEMESTER – VIII.EXAMINATION – WINTER 2016

5	Subje	ect Code: 180203 Date: 21/10/2016	
,	Time	ect Name: Special Purpose Vehicles : 02:30 PM to 05:00 PM Total Marks: 70	
J	Instruc	 Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 	
Q.1	(a) (b)	Classify the special purpose vehicles and give the application of each. Write the advantages and disadvantages of hybrid car. And explain hydraulic braking system.	07 07
Q.2	(a) (b)	Explain construction and working principle of mobile crane with neat sketch. Explain different attachments of wheel loaders with neat sketch. OR	07 07
	(b)	What is PTO shaft? Explain 3 standard types of PTO shaft.	07
Q.3	(a) (b)	Explain purpose, construction and working of Tippers in detail. Explain any two steering gear box with neat sketch. OR	07 07
Q.3	(a) (b)	Give the classification of tractor and explain various implements used with tractor. Explain in detail tracked vehicle used in armed force.	07 07
Q.4		-	07 07 07
Q.4	(a) (b)	Write short note on multi axle vehicles. Explain Safety consideration during crane operations.	07 07
Q.5	(a) (b)	Explain Track-Mounted Excavator in detail. What is "Ballasting" of tractor? Give its advantages and explain the methods of Ballasting.	07 07
Q.5	(a)	OR Explain the fifth wheel arrangement of Truck semi-trailer and different	07
Q.3	(a)	application of semi-trailers.	07
	(b)	Explain the different types of lubrication system.	07
