Seat No.:	Enrolment No
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V(New) • EXAMINATION – WINTER 2016

Subject Code:2150208 Date:24/11/2016

Subject Name: Automotive Electrical Systems

Time:10:30 AM to 01:00 PM Total Marks: 70

Instructions:

- Attempt all questions.
- Make suitable assumptions wherever necessary.
- Figures to the right indicate full marks.

Q	.1	Short Questions	MARKS
		What is Multiplexing in automotive electrical system? Write the lead gold better	14
		Write the lead acid battery charging-discharging, chemically	01
		balanced equation.	01
		In hydrometer test, Amperage of battery is to be measured. True or False?	01
	4	What is the main purpose of regulators in charging system?	
	5	the component of ignifican system does stor 41	01
	6		01
	7	Which material is used to make conventional:	01
			01
	8	That is the importance of asymmetric headlight 1	
	9	" net is the wallage of stop hight bulk o	01
	10	A lont screen wiper can have two wiper mate. To	01
	11		01
	12	That is the colour of a wire that is main cumb.	01
			01
	13		0.4
	14	What is the specific gravity of electrolyte of fully charged condition of battery?	01 01
Q.2	(a)	wife detail of wife colour coding constitution	
			03
	(b)	Enlist types of fuses and explain working of fuses and circuit breakers used in vehicles	
			04
	(c)	Enlist the requirements of battery and explain constructional feature of battery	07
	(a)	OR OR	
Q.3	(c)	Enlist battery rating methods and explain different battery test.	07
Q.5	(a)	Give three common problems and their causes occurred in starter motor.	07
	(b)		03
	(c)	Explain working of glow plug and choke.	04
	(0)	Explain voltage and current regulator in detail with neat sketch	07
Q.3	(a)	THE	· ,
	(b)	Explain rectification used in charging system of vehicle. Write a short note on system of vehicle.	03
	(c)	Write a short note on cut out relay used in charging circuit.	04
	(-)	Enlist types of starter motor drive and explain any two with neat sketch	07

0.4	(a)	What is the importance of ballast resistance?	03
	(b)	Give importance of ignition advance and explain centrifugal advance method with neat sketch in brief.	04
	(c)	Explain circuit diagram and working of battery ignition system. OR	07
Q.4	(a)	Enlist the lights and indicators and their functions shown on dashboard of a common hatchback car.	03
	(b)	Explain the head lamp angle position setting method for vehicle.	04
	(c)	Give the purpose of reflector of head light and explain its design with near sketch.	07
Q.5	(a)	Explain flasher unit used in side indicator.	03
	(b)	Explain the central locking system of vehicle	04
	(c)	Explain different types of fuel gauges in detail with neat sketch.	07
		OR.	
Q.5	(a)	Explain the rear wind shield glass heating system.	03
	(b)	Explain wind blow horn and its circuit in brief.	04
	(c)	Explain the working of windscreen wiper and windscreen washer in detail.	07
