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BTECH
(SEM VI) THEORY EXAMINATION 2021-22
AUTOMOTIVE ELECTRICAL AND ELECTRONICS

Time: 3 Hours**Total Marks: 100****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A****1. Attempt all questions in brief.****2 x 10 = 20**

Q.No	Question	Marks	CO
a.	State Ohm's law.	2	CO1
b.	State Kirchoff's Current law.	2	CO1
c.	Why Nickel – Cadmium is used in Battery.	2	CO2
d.	List any five main parts of DC Generator	2	CO2
e.	Explain in Brief Cut – Out Relays.	2	CO3
f.	Write Short Notes on Spark Plug.	2	CO3
g.	Write Short Notes on Head Lamp.	2	CO4
h.	What are the configurations in operating stepper motor?	2	CO4
i.	Briefly explain the principles of sensors.	2	CO5
j.	Explain briefly about the static characteristics of sensors.	2	CO5

SECTION B**2. Attempt any three of the following:**

Q.No	Question	Marks	CO
a.	Explain the Insulated and Earth Return System.	10	CO1
b.	Explain Starter Switches and Solenoids.	10	CO2
c.	Explain Automotive Ignition Systems.	10	CO3
d.	Explain Automotive Networking.	10	CO4
e.	Explain the Basic Principle of Automotive Sensors and Actuators.	10	CO5

SECTION C**3. Attempt any one part of the following:**

a.	Explain Simple Electric Circuit.	10	CO1
b.	Explain various tests on battery.	10	CO1

4. Attempt any one part of the following:

a.	What are the Requirements of Starter Motor & its Type?	10	CO2
b.	Explain the Voltage and Current Regulation of a Charging system.	10	CO2

5. Attempt any one part of the following:

a.	Explain Centrifugal and Vacuum Advance Mechanism.	10	CO3
b.	Explain Automotive Wiring Circuit.	10	CO3

6. Attempt any one part of the following:

a.	What are the types of control system and Explain?	10	CO4
b.	Explain the Architectures of Electronic System.	10	CO4

7. Attempt any one part of the following:

a.	Explain different types of Sensors.	10	CO5
b.	Explain Stepper Motor with neat sketch?	10	CO5