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**BVOC**  
**(SEM I) THEORY EXAMINATION 2021-22**  
**AUTOMOBILE ELECTRICAL EQUIPMENT**

**Time: 3 Hours****Total Marks: 30****Notes:**

- Attempt all Sections and Assume any missing data.
- Appropriate marks are allotted to each question, answer accordingly.

SECTION-A	Attempt <b>ALL</b> of the following Questions in brief	Marks (6X1=6)
Q1(a)	What do you mean by wiring harness?	
Q1(b)	What are the care and maintenance required for the battery?	
Q1(c)	List out the methods used to charge the battery.	
Q1(d)	What is Dyna -Starter?	
Q1(e)	Write down the different parts of D.C. Generator.	
Q1(f)	What do you mean by voltage regulator?	

SECTION-B	Attempt <b>ANY THREE</b> of the following Questions	Marks (3X3=9)
Q2(a)	Describe briefly the way in which a wiring colour code or a wiring numbering system can assist the technician when diagnosing electrical faults.	
Q2(b)	Write Short Notes on any two of the following: <ol style="list-style-type: none"> <li>i) Circuit breakers</li> <li>ii) Plastic fiber optic wires</li> <li>iii) Printed circuits</li> </ol>	
Q2(c)	Write down the advantages of Alternator over D.C. Generator.	
Q2(d)	What is the specific gravity of electrolyte and its variation with temperature?	
Q2(e)	What do you understand by the regulator? Brief about current and voltage regulator.	

SECTION-C	Attempt <b>ANY ONE</b> following Question	Marks (1X3=3)
Q3(a)	Explain the earth returning systems in the wiring?	
Q3(b)	What is system wiring diagram? How to draw the wiring diagram?	

SECTION-C	Attempt <b>ANY ONE</b> following Question	Marks (1X3=3)
Q4(a)	Explain the construction of Lead acid battery and component details with sketch.	
Q4(b)	Explain the principle, construction and working of an alkaline battery.	

SECTION-C	Attempt <b>ANY ONE</b> following Question	Marks (1X3=3)
Q5(a)	What is VRLA Battery? Write down the difference between VRLA Battery and Lead-acid battery.	
Q5(b)	What is Split field and Buckling field?	

SECTION-C	Attempt <b>ANY ONE</b> following Question	Marks (1X3=3)
Q6(a)	Explain the construction and working principle of an DC Generator with sketch.	
Q6(b)	Explain the construction and working principle of an alternator with sketch.	

SECTION-C	Attempt <b>ANY ONE</b> following Question	Marks (1X3=3)
Q7(a)	How does the alternator charge the battery explain?	
Q7(b)	What is constant current and constant voltage system? Write down its applications.	