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Total No. of Pages : 02

Total No. of Questions : 09

B.Voc. (Automobile Servicing) (Sem.–1)
MODERN ELECTRIC AND HYBRID VEHICLES

Subject Code : 5.GV.04

M.Code : 77016

Time : 3 Hrs.

Max. Marks : 30

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying ONE mark each.
2. SECTION-B contains FIVE questions carrying 2½ (Two and Half) marks each and students has to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying FIVE marks each and students has to attempt any TWO questions.

SECTION-A

Q1. Answer Briefly :

- a) What do you understand by hybrid vehicles?
- b) What is importance of electric vehicles?
- c) What is generator?
- d) What are power converters?
- e) What do you understand by traction?
- f) What is regenerative braking system?
- g) What are brushless motors?
- h) What are disadvantages of electric and hybrid vehicles?
- i) What is difference between electric and hybrid electric vehicles?
- j) What is environmental importance of electric vehicles?

SECTION-B

- Q2. Explain main components of an electric vehicle.
- Q3. Briefly explain various electric drive train topologies.
- Q4. Explain different types of DC motors.
- Q5. Explain drive controllers.
- Q6. Explain advantages and disadvantages of RBS.

SECTION-C

- Q7. Discuss the power flow control in electric and hybrid electric drive train topologies.
- Q8. Explain working of regenerative braking system.
- Q9. What are electric drive components used in electric and hybrid vehicles?

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.