

Printed Pages : 3



EAU-041

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 147754

Roll No.

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B. Tech.

(SEM. VII) (ODD SEM.) THEORY

EXAMINATION, 2014-15

ADVANCED AUTOMOBILE TECHNOLOGIES

Time : 3 Hours]

[Total Marks : 100

Note: Attempt all questions. Be precise in your answer. Draw neat and clean diagram where ever required. Assume data suitably if necessary.

SECTION - A

Attempt All Questions :

2×10=20

- What is the future of automotive industry in India? And what are the crucial issues facing the automotive industry explain with example?
- What is Fuel Cell technology? Write its advantage, disadvantages and applications.
- What is Hybrid Vehicle? Give differences between hybrid vehicle and electric vehicles.
- What are sensors and why these are used in automobile vehicle?
- Define Variable Valve Timing and their used.

- f) Define power steering and five examples where it is used ?
- g) Explain the current status of new technology used in automobile vehicles.
- h) What is braking system and give some application and why?
- i) Explain diesel particulate emission control system with example.
- j) What do mean by satellite control system?

SECTION - B

Attempt Any Three Questions :

10×3=30

- a) What is Electric Vehicle? Describe its working and construction.
- b) What is Navigation and GPS? What are advantage and disadvantage of GPS? How it can be used?
- c) What is 42 Volt System? What is the construction of 42 Volt System? How do they work?
- d) How National highway network with Navigation and GPS is automated roads and vehicles? What are benefits?

SECTION - C

Attempt All Questions :

10×5=50

- a) Explain briefly X-By wire technology with construction and advantages and disadvantages.

OR

- a) Explain briefly with working and construction of Lithium battery and also write some application.

- b) Explain briefly X-By wire technology with construction and advantages and disadvantages.

OR

- b) What is Hybrid Vehicle? Describe its working and construction and their application.
- c) What are the different types of sensors used in a automotive vehicle describe with working any six sensors with their application ?

OR

- c) Describe electrical assist steering system with working and construction. Write any four vehicles where this type of steering system used.
- d) How electromagnetic valve operates and what is the mechanism of electromagnetic vale explain briefly?

OR

- d) Explain the lead acid battery with construction and working and write advantages and disadvantages.
- e) Explain briefly with construction and working of regenerative braking system.

OR

- e) What are future development of new energy storage system explain briefly?
