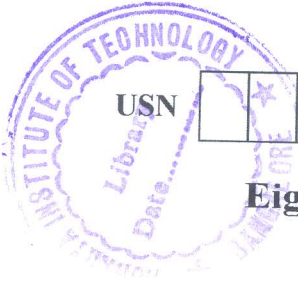


CBCS SCHEME



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15MT81

Eighth Semester B.E. Degree Examination, July/August 2021 Automotive Electronics & Hybrid Vehicles

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions.

- 1 a. Explain four stroke cycle with neat diagram. (08 Marks)
b. Explain the concept of fuel injection in diesel engines. (08 Marks)
- 2 a. Write a note on Air/Fuel management in Automobiles. (08 Marks)
b. Discuss braking system used in automobiles. (08 Marks)
- 3 a. What is a sensor? Explain the working of an oxygen sensor. (08 Marks)
b. Explain evaporative emission systems. (08 Marks)
- 4 a. With a neat diagram, explain the working of a throttle position sensor. (08 Marks)
b. Define actuator. Also explain working of ignition actuator. (08 Marks)
- 5 a. Explain the concept of sampling. (08 Marks)
b. Explain occupant protection systems. (08 Marks)
- 6 a. Write a note on remote keyless entry. (08 Marks)
b. With brief explanation about all segments, explain GPS architecture. (08 Marks)
- 7 a. Explain the concept of ABS. (08 Marks)
b. What is electronic suspension system? Explain semiactive electronic suspension system. (08 Marks)
- 8 Write short notes on:
(i) Timing light.
(ii) Engine analyzer. (16 Marks)
- 9 a. Explain the various components of EHV. (08 Marks)
b. Explain the working of lead acid battery in electric vehicles. (08 Marks)
- 10 Write a note on:
a. Series HEV drive train. (08 Marks)
b. Parallel HEV drive train. (08 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.