



# CBCS SCHEME

15AU561

## Fifth Semester B.E. Degree Examination, June/July 2019 Automobile Engineering

Time: 3 hrs.

Max. Marks: 80

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

- 1 a. With the help of a neat sketch, explain any four engine components. (08 Marks)  
b. Explain with the help of a valve timing diagram four stroke SI engine. (08 Marks)

OR

- 2 a. Explain with a neat sketch construction and working of four stroke CI engine. (08 Marks)  
b. What is cooling system? Explain with a neat sketch thermosymphon cooling system. (08 Marks)

### Module-2

- 3 a. Explain the fuel mixture requirements for SI engine. (08 Marks)  
b. Explain with a neat sketch simple carburetor. (08 Marks)

OR

- 4 a. With the help of a neat sketch explain construction and working of solex carburetor. (08 Marks)  
b. Explain with a neat sketch common Rail Diesel injection system. (08 Marks)

### Module-3

- 5 a. Explain with a neat sketch Battery Ignition system. (08 Marks)  
b. Explain with a neat sketch construction and working of multiplate clutch. (08 Marks)

OR

- 6 a. Explain with a neat sketch syncromesh gear box. (08 Marks)  
b. Explain with a neat sketch Magnate Ignition System. (08 Marks)

### Module-4

- 7 Write short notes with neat sketch:  
a. Caster  
b. Camber  
c. Toe in and Toe out  
d. King pin inclination (16 Marks)

OR

- 8 a. What are chassis? Explain any one types of chassis with neat sketch. (08 Marks)  
b. Write short notes on: (i) Differential lock (ii) Semi-differential lock (08 Marks)

### Module-5

- 9 a. With the help of a neat sketch, explain Antilock Braking System. (08 Marks)  
b. Explain with a neat sketch working of disk brake. (08 Marks)

OR

- 10 a. Write short notes on: (i) 2 way catalytic converter (ii) 3 way catalytic converter (08 Marks)  
b. Write note on: (i) Leaf spring (ii) Drum Brakes  
(iii) Coil spring (iv) Sources of emission from engine (08 Marks)

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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.