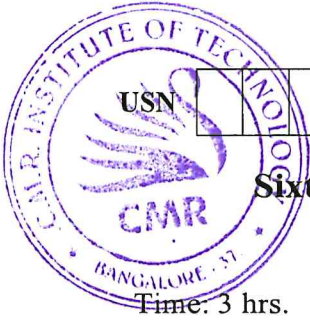


CBCS SCHEME



17ME655

Sixth Semester B.E. Degree Examination, July/August 2022 Automobile Engineering

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. List the components of automotive engine. Mention their functions. (06 Marks)
- b. Why cooling is necessary and what are different methods of cooling. (04 Marks)
- c. Explain the different types of combustion chambers used in CI engine. (10 Marks)

OR

- 2 a. With neat sketch explain the working of thermosiphon cooling system. (08 Marks)
- b. What are the function of piston rings to perform in an engine. (04 Marks)
- c. Explain dry sump lubrication system, with help of neat sketch. (08 Marks)

Module-2

- 3 a. With the help of neat sketch, explain multi plate clutch. (10 Marks)
- b. Explain with neat sketch the working of torque converter. (10 Marks)

OR

- 4 a. Explain with neat sketch :
 - i) Propeller shaft
 - ii) Universal joint. (10 Marks)
- b. Explain working of master cylinder of braking system with the help of neat diagram. (10 Marks)

Module-3

- 5 a. Define following :
 - i) Camber
 - ii) Caster
 - iii) King pin inclination. (06 Marks)
- b. Explain the working of power steering. (04 Marks)
- c. Explain with neat sketch working of air suspension system. (10 Marks)

OR

- 6 a. What are the requirements of ignition system? (04 Marks)
- b. With a neat diagram the working of Battery Ignition system. (08 Marks)
- c. Sketch and explain electronic ignition system. (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.

Module-4

- 7 a. Explain centrifugal type of super charger with the help of neat sketch. (06 Marks)
b. Distinguish between supercharging and turbo charging. (06 Marks)
c. Explain the working of turbocharger with a neat diagram. (08 Marks)

OR

- 8 a. Explain working of Zenith carburetor. (08 Marks)
b. Explain the working of Common Rail Direct Injection System (CRDI) with a neat diagram. (08 Marks)
c. Mention different types of carburetors. (04 Marks)

Module-5

- 9 a. Briefly explain different types of emission from IC engine. (10 Marks)
b. Discuss positive crank case ventilation system. How evaporative emissions are controlled. (10 Marks)

OR

- 10 a. Explain the working of :
i) EGR
ii) Catalytic converter. (10 Marks)
b. Explain the working of :
i) Air injection system (06 Marks)
ii) Air aspirator valve. (04 Marks)
c. Explain the different types of Euro Emission standards. (04 Marks)
