

Reg. No. :

--	--	--	--	--	--	--	--	--	--	--	--

Question Paper Code: 1145262

B.E. / B.Tech. DEGREE EXAMINATIONS, NOV/ DEC 2024

Fifth Semester

Mechanical Engineering

U20ME504 – AUTOMOBILE ENGINEERING

(Regulation 2020)

Time: Three Hours

Maximum: 100 Marks

Answer ALL questions

PART – A

(10 x 2 = 20 Marks)

1. What are the functions of a frame?
2. Name few components of Engine.
3. List out the function of carburetor.
4. Mention the various pollutants in I.C engine.
5. Differentiate between the torque convertor and fluid flywheel.
6. Define universal joint.
7. List out the different types of steering gear system.
8. Write short notes on need of hydraulic Braking system.
9. What are the general compositions for natural gas?
10. Mention the advantages of fuel cell.

PART – B

(5 x 16 = 80 Marks)

11. (a) Draw a neat diagram of an IC engine and explain some important parts. (16)

(OR)

- (b) Explain the construction of various frames used in automobiles with neat sketch. (16)

12. (a) Illustrate with a sketch the working of rotary distribution type fuel injection system. (16)

(OR)

- (b) Explain with a suitable sketch the working of a Transistorized Coil Ignition system. (16)

13. (a) Discuss the working principles of. (16)
(i) Torque tube drive. (ii) Hotchkiss drive

(OR)

- (b) Explain with suitable sketches the operational features of sliding mesh gearbox. (16)

14. (a) What is anti-lock braking system and explain the need and functioning of anti-lock braking system. (16)

(OR)

- (b) Describe the construction and operation of power steering with neat sketch. (16)

15. (a) Discuss in details about (i) Hybrid Vehicles (ii) Fuel cell (16)

(OR)

- (b) Give short notes on the following: (16)
(i) Natural Gas (ii) LPG (iii) Bio-Diesel