R18 Regulation Subject code: 2P5CD

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A' Grade)

B.Tech V Semester Regular Examinations, February 2021

Automobile Engineering

(Mechanical Engineering)

Maximum Marks: 70 Date:24.02.2021 Duration: 3 hours

Note: 1.This question paper contains two parts A and B.
2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks **(10x2M=20 Marks)**

1 Mention the necessity of engine lubrication.
2 Write the uses of a fuel pump.
3 List the functions of radiators in automobiles.
4 What is Fuel injector?
5 Mention the various types of clutches in automobile.
6 What are the functions of a suspension system in an automobile?
7 List the types of breaking system in automobiles.
8 Define castor and Camber.
9 What are the advantages of LPG as an IC engine fuel?
10 What are the automotive emissions.

Part-B

Answer All the following questions. **(10M X 5=50Marks)**

11 Describe the general layout of an automobile with a diagram, indicating the functions of main parts. (10M)

OR

12 Write short notes on (a) working of a simple carburettor (b) CRDI system. (10M)

13 Discuss the construction and working of a battery ignition system with a diagram. (10M)

OR

14 List the types and functions of an engine cooling system. Also discuss the layout of water cooling system in automobiles. (10M)

15 Describe the construction and working of a centrifugal clutch with a neat sketch. (10M)

OR

16 Discuss the working principle of a differential with a neat sketch. (10M)

17 Explain the working of Davis steering mechanism. Add a note on its merits and limitations. (10M)

OR

18 Explain the working of a hydraulic braking system with a necessary diagram. (10M)

19 Discuss the technique of MPFI for SI engines. List its merits and demirits. (10M)

OR

20 Describe the merits and demerits of following energy alternatives for IC engines (a) CNG (b) Biofuels. (10M)