



R20 Regulation *Subject code: 3E5CA*
TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
 (Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech V Semester Supplementary Examinations, July 2024

AUTOMOBILE ENGINEERING
(Mechanical Engineering)

Maximum Marks: 70

Date:01.08.2024 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		CO	Bloom Tx
All the following questions carry equal marks (10x2M=20 Marks)			
1	What are the functions of frames in automobile?	1	1
2	What is the advantage of CRDI system	1	1
3	What is the function of spark plug?	2	1
4	Draw a sketch of cooling water system and indicate parts.	2	1
5	State the functions of clutch	3	1
6	What are the objectives of suspension system	3	1
7	Define king pin inclination.	4	1
8	State the functions of torsion bar,	4	1
9	What are the advantages of an electric car?	5	1
10	What is the need for CNG?	5	1
Part-B			Bloom Tx level
Answer All the following questions. (5X10M=50Marks)			
11	With the help of neat sketch explain in detail about the construction and working of different engine components? [10]	1	2
OR			
12	Explain front engine rear wheel drive's salient features, advantage and disadvantages. [10]	1	2
13	Explain the key features and working principle of electronic ignition system. [10]	2	3
OR			
14	Draw a layout and explain about the lighting system of an automobile. [10]	2	3
15	Explain the working of sliding mesh gear box with neat sketch. [10]	3	2
OR			
16	Explain the various suspension systems available and discuss any one type. [10]	3	2
17	Explain the pneumatic or air brakes with neat sketch. [10]	4	2

	OR		
18	Explain the working of power steering with neat sketch. [10]	4	2
19	Discuss various methods to reduce the level of pollutants in the exhaust gases. [10]	5	3
	OR		
20	Explain the concept of hybrid vehicles with neat sketch. [10]	5	3