



R20 Regulation

Subject code: 3E5CA

# TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

**B.Tech V Semester Supplementary Examinations, November 2025**

## AUTOMOBILE ENGINEERING

(ME)

Maximum Marks: 70

Date: 14.11.2025

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)		Marks	CO	BTL
1	What is under steering?	2M	1	L1
2	What are the types of automobiles with respect to the drive of the vehicle.	2M	1	L1
3	What does generator and motor do?	2M	2	L1
4	State the carburetor trouble shooting according to poor engine pickup.	2M	2	L1
5	Name the two types of propeller shafts.	2M	3	L1
6	What is the function of a gearbox?	2M	3	L1
7	Define caster angle.	2M	4	L1
8	What are the types of water cooling?	2M	4	L1
9	Mention the methods of producing hydrogen gas.	2M	5	L1
10	List down the vehicles that use electricity as fuel.	2M	5	L1

### Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	Write construction and Components of automobile?	10M	1	L2
	OR			
12	Explain Basic Parts of the Gasoline Engine.	10M	1	L2
13	Explain Pressure cooling system.	10M	2	L2
	OR			
14	Explain the Introduction of Ignition System.	10M	2	L2
15	Write the purpose and types of Lubrication System.	10M	3	L2
	OR			
16	What is clutch? Explain briefly about single plate clutch with neat sketch.	10M	3	L2
17	a) What is the function of brake? State its types and functions? b) What is regenerative braking?	5M 5M	4	L2
	OR			
18	Explain briefly Ackermann steering mechanism with a neat sketch.	10M	4	L2
19	a) What are advantages of LPG over conventional fuels? b) What are the disadvantages of using alcohol as an alternative fuel?	5M 5M	5	L2
	OR			
20	Explain the classification of automobiles.	10M	5	L2