R20 Regulation *Subject code: 3E5CA*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech V Semester Supplementary Examinations, April 2026

AUTOMOBILE ENGINEERING

(ME)

Maximum Marks: 70 Date: 27.04.2026 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	Classify automobiles with respect to the drive of the vehicle.	2M	1	L1
3	List any two batteries used in automobiles.	2M	2	L1
4	Define battery life.	2M	2	L1
5	What do you mean by fluid flywheel?	2M	3	L1
6	Why multi-plate clutches are used in automobiles?	2M	3	L1
7	What are the types of brakes?	2M	4	L1
8	What is tandem master cylinder?	2M	4	L1
9	Define flame speed.	2M	5	L1
10	Which gas has the highest ignition temperature?	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 the Simple Carburetor. Write the purpose and types of Lubrication System.	10M	1	L2
13	Explain Pressure cooling system.	10M	2	L2
	OR			
14	Explain the Introduction of Ignition System.	10M	2	L2
15	Explain the sliding mesh gearbox with a suitable sketch.	10M	3	L2
	OR			
16	Difference between Hotchkiss Drive mechanism and Torque tube Drive.	10M	3	L2
17	Write about pneumatic braking in automobile.	10M	4	L2
	OR			
18	Explain briefly about CAMBER,CASTOR,TEO IN and TOE OUT.	10M	4	L2

19	a) What are the alternative fuels? b) What are the various properties of gaseous fuel?	5M 5M	5	L2
	OR			
20	What are the types of fuel cell? State the advantages of fuel cell.	10M	5	L2