



R20 Regulation

Subject code:3E5CA

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech V Semester Supplementary Examinations, May 2025

AUTOMOBILE ENGINEERING

(ME)

Maximum Marks: 70

Date: 27.06.2025

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	Classify automobiles with respect to the drive of the vehicle.	2M	1	L1
3	What does generator and motor do?	2M	2	L1
4	Define battery life.	2M	2	L1
5	What do you mean by fluid flywheel?	2M	3	L1
6	What is the function of a gearbox?	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	A) What are the alternative fuels? B) What are the various properties of gaseous fuel?	5M 5M	1	L2
OR				
12	Why diesel engines are not preferred in commercial?	10M	1	L2
13	A) What are the difference between battery coil ignition and magneto ignition system? B) State the requirements of ignition system? And state its types.	5M 5M	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	Explain briefly Ackermann steering mechanism with a neat sketch.	10M	4	L2
OR				
18	Write about pneumatic braking in automobile.	10M	4	L2

19	A) What are the main components of electric and hybrid vehicles? B) What are the disadvantages of using alcohol as an alternative fuel?	5M 5M	5	L2
	OR			
20	What are the types of fuel cell? State the advantages of fuel cell.	10M	5	L2