

Enrolment Number: _____

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.TECH MIDSEM EXAMINATION
SEMESTER- 6

Subject Name: - Automotive Certification and Homologation 203102393
Date: 02.02.2024

ACY-2023-24 (EVEN SEM)
Time: 10.30 AM to 12.00 PM

Branch: Automobile Engineering
Total Marks: 40

Sr. No.	Marks
Q.1 (A) One line Questions:	5
1. Write the full-form of EEC.	
2. Write the full-form of ADR.	
3. Write the full-form of CMVR.	
4. Define rolling resistance.	
5. Define aerodynamic drag.	
Q.1 (B) Compulsory Question:	5
1. Trailers with a maximum mass not exceeding 0.75 tonnes belongs to _____.	
a. Category O1	
b. Category O2	
c. Category O3	
d. Category O4	
2. The turning circle diameter test is a crucial maneuverability assessment for vehicles, particularly those used in confined spaces or urban environments.	
a. True	
b. False	
3. The _____ test is an important part of the vehicle homologation process to ensure that vehicles meet noise emission standards.	
a. pass-by noise	
b. pass-on noise	
c. automotive noise	
d. vehicle noise	
4. Go-karts vehicles are designed for use in rough terrain, such as deserts, mountains, and forests.	
a. True	
b. False	
5. Speedometers should be calibrated whenever there is a significant change to the _____.	
a. vehicle's tires.	
b. vehicle's tires & wheels	
c. vehicle's tires, wheels, or drivetrain.	

Q.2	Attempt any four (Short Questions)	12
1.	Explain Motor Vehicles Category-N Layout.	
2.	Explain Speedometer calibration.	
3.	Define the following listed engine specifications:	
	a. Engine displacement	
	b. Compression ratio	
	c. Bore	
4.	Write the key objectives of the Central Motor Vehicles Rules.	
5.	Summarize the key functions of the following regulations organization:	
	a. Economic Commission for Europe	
	b. Federal Motor Vehicle Safety Standards	
	c. Automotive Industry Standards	
Q.3	Attempt any two	8
1.	What are the factors affecting steering effort?	
2.	Define the following listed Vehicle specifications:	
	a. Engine Displacement	
	b. Horse Power	
	c. Torque	
	d. Fuel Economy	
3.	List and discuss the advantages of physical verification and vehicle weighment.	
Q.4 (A)	How are vehicles classified by automotive sector?	05
Q.4 (B)	Explain the purpose of brake tests and describe the two main types of brake tests.	05
	OR	
Q.4 (B)	Explain Motor Vehicles Category-L Layout.	05