

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE, APRIL – 2023**

AUTOMOBILE ENGINEERING

[Maximum Marks: 75]

[Time: 3 Hours]

PART-A

I. Answer *all* the following questions in one word or one sentence. Each question carries 'one' mark.

(9 x 1 = 9 Marks)

		Module Outcome	Cognitive level
1.	Most commonly used engine in automobile is	M1.01	R
2.	Commonly used storage battery in automobile is.....	M1.07	R
3.	The purpose of gear box in an automobile is to vary.....	M2.01	R
4.	Propeller shaft connected between gear box and.....	M2.03	R
5.	Gear system used in differential gear box is.....	M2.03	R
6.	The primary function of system is to provide angular motion of the front wheels to negotiate the turn.	M3.02	R
7.	Master cylinder is associated with	M3.04	R
8.	A vehicle that uses both electric motor and IC engine is known as.....	M4.05	R
9.	PHEV Stands for.....	M4.06	R

PART-B

II. Answer any *eight* questions from the following. Each question carries 'three' marks.

(8 x 3 = 24 Marks)

		Module Outcome	Cognitive level
1.	Enumerate the main parts of an automobile engine.	M1.01	R
2.	Name different types of automobile engine lubrication.	M1.04	R
3.	What are the functions of carburetor in an automobile?	M1.05	R
4.	Name the different components of automobile transmission system.	M2.01	R
5.	What is a clutch and where it is located in an automobile?	M2.02	U
6.	What are the objectives of suspension system?	M3.01	U
7.	Define the term camber in steering geometry.	M3.02	R
8.	What are the functions of Tyre in an automobile?	M3.03	U
9.	What is brake system in automobile, name the different types?	M3.04	R
10.	Name the different components of hybrid electric vehicle.	M4.05	R

PART-C

Answer all questions. Each question carries 'seven' marks

(6 x 7 = 42 Marks)

		Module Outcome	Cognitive level
III.	Describe briefly the function, draw and mark parts of a piston.	M1.01	U
	OR		
IV.	Explain splash lubrication system with neat sketch.	M1.04	U
V.	Explain the working of AC mechanical pump.	M1.05	U
	OR		
VI.	Explain with neat sketch battery coil ignition system.	M1.06	U
VII.	List any seven requirements of clutch.	M2.02	R
	OR		
VIII.	Explain the working of constant mesh gear box with a neat sketch.	M2.02	U
IX.	Explain with neat sketch the construction of propeller shaft.	M2.03	U
	OR		
X.	Describe full floating rear axle briefly with a neat sketch.	M2.03	U
XI.	What are the functions and requirements of steering system?	M3.02	U
	OR		
XII.	Draw section of an alloy cast wheel, list its advantages.	M3.03	U
XIII.	With neat lay out explain the working of electric vehicle.	M4.01	U
	OR		
XIV.	Draw the lay out of hybrid electric vehicle and explain the components briefly.	M4.05	U
