


Name:			
Enrolment No:			
UPES End Semester Examination, May 2023			
Course: Introduction to automotive engineering Program: B. Tech ADE Course Code: MEAD1004		Semester: II Time : 03 hrs. Max. Marks: 100	
Instructions: Attempt all questions.			
SECTION A (5Qx4M=20Marks)			
S. No.		Marks	CO
Q 1	Name the components of chassis.	4	CO1
Q2	What do you understand by swept volume and clearance volume of IC engine?	4	CO1
Q3	Differentiate between two stroke and four stroke IC engine.	4	CO1
Q4	What do you mean by compression ratio of IC engine?	4	CO1
Q5	What do you understand by ECU?	4	CO1
SECTION B (4Qx10M= 40 Marks)			
Q6	Draw the P-V diagram of diesel engine. Also explain the thermodynamic processes involve in the diesel cycle.	10	CO2
Q7	Explain the internal component of the engines.	10	CO2
Q8	Explain working of the power steering with neat sketch.	10	CO3
Q9	What is the roll of the transmission system in automotive OR Explain vehicle suspension. Why is it necessary in the automotive?	10	CO3
SECTION-C (2Qx20M=40 Marks)			
Q 10	What do you mean by emission? Explain the various emission parameter. OR Explain the working of VVT valve system of internal combustion engine.	20	CO4
Q11	Explain the role of the NCAP. How safety rating is provided to any vehicle?	20	CO4