

Name:

Enrolment No:



UPES

End Semester Examination, May 2024

Course: Introduction to Automobile Engineering

Program: B.Tech ADE

Course Code: MECH1009





Semester: II

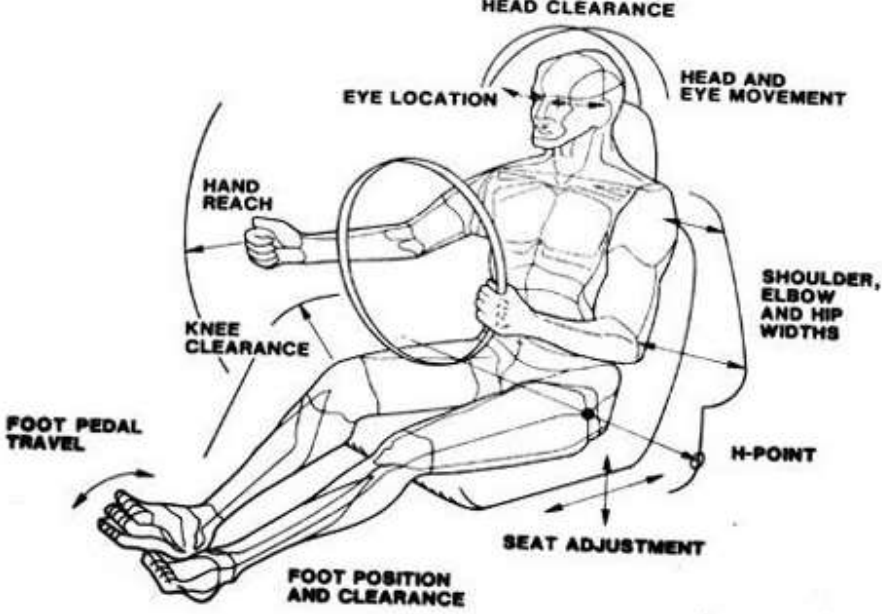
Time : 03 hrs.

Max. Marks: 100

Instructions: *Instructions: All questions are compulsory. The question paper consists of 11 questions divided into 3 sections A, B and C. Section A comprises 5 questions of 4 marks each, Section B comprises 4 questions of 10 marks each and Section C comprises 2 questions of 20 marks each.*

SECTION A
(5Qx4M=20Marks)

S. No.		Marks	CO
Q 1	Identify the components labelled in the figure given below: 1  2  3  4 	4	CO1
Q 2	Explain briefly about vehicle aerodynamics.	4	CO1

Q 3	Discuss the components of Multi point fuel injection system?	4	CO1
Q 4	What are the materials used for the Components of I.C engine	4	CO1
Q 5	Discuss the major pollutants in exhaust gases from automobiles? Discuss in EURO III and EURO IV.	4	CO2
SECTION B (4Qx10M= 40 Marks)			
Q 6	Explain front and rear wheel drive layout in detail with relevant sketch	10	CO2
Q 7	List out the components of I.C engine and its function	10	CO1
Q 8	Explain the construction and working of a differential with a neat sketch	10	CO2
Q 9	Outlines the major function of the committees involved in “Emission Regulation Administration”	10	CO2
SECTION-C (2Qx20M=40 Marks)			
Q 10	Analyze the given figure and discuss functional task-oriented measurements. 	20	CO3
Q 11	Define the following terms a) Engine b) Heat Engine c) Real wheel drive d) Front wheel drive e) Difference between real wheel drive and front wheel drive OR Discuss following: (a) Transmission System (b) Components of transmission system (c) Different types of clutches (d) function of clutches (e) Main components of clutches	20	CO1