

Name:	 UPES UNIVERSITY WITH A PURPOSE
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, December 2019

Course: Ergonomics & Styling

Semester: V

Program: B.Tech ADE

Time 03 hrs.

Course Code: MEAD 3006

Max. Marks: 100

Instructions: Attempt all the questions.

SECTION A

S. No.	Question	Marks	CO
Q 1	“Maximum actuating force for break operation should be 5th percentile right leg strength of female” – Justify.	5	CO4
Q 2	Define the following a. Anthropometry b. Biomechanics	5	CO4
Q 3	Describe SgRP?	5	CO6
Q 4	“SgRP is one of the most important vehicle package dimension” interpret the statement.	5	CO6

SECTION B

Q 5	Describe the key steps in an Automotive Design Process.	10	CO1,CO2
Q 6	Draw a three-box car and name the Exterior panels in the Side view.	10	CO1,CO2
Q 7	Discuss the ergonomic design consideration for designing vehicle display and control.	10	CO3,CO5
Q 8	Define Anthropometry and explain principles used in application of anthropometric data in designing products. OR “An ergonomist always tries to Fit a job/product to the user”. Explain	10	CO4

SECTION-C

Q 9	You have to design passenger seats for a long distance express bus. Explain the ergonomics and biomechanical considerations of your seat design. Also, justify which anthropometric data you need for the design	20	CO4
Q 10	Differentiate between a Hatchback, Sedan and SUV with engine, Fuel tank, cargo and Passenger Area. Explain the relation of Form and Function with Diagram. OR	20	CO1,CO2

	Illustrate at least 8 different body styles or Segments in the whole Automotive Domain, and list the key differences between these constructions with side views.		
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