

Name:	
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

End Semester Examination, May 2019

Programme Name: B.Tech ADE	Semester : VIII
Course Name : Auto Certification & Homologation	Time : 03 hrs
Course Code : ADEG-442	Max. Marks : 100
Nos. of page(s) : 2	

SECTION A

S.N	Question	Marks	CO
1	“Day time running lamp” is mandatory in two wheelers as per ARAI, Justify.	5	CO4
2	Explain the term “True speed” of vehicle during speedometer calibration	5	CO2
3	Define A. Automotive Homologation B. Type Approval	5	CO1
4	Differntiate between five point and three point harness saftey systems.	5	CO5
OR			
5	Explain “The fuel economy” on the basis on following factors A. Tyre road condition B. Traffic condition C. Driving habits	10	CO4
6	Explain two and four wheelers testing on chassis dynamometers.	10	CO1
7	Pillion Hand Hold is considered as important member on the two wheeler, explain in detail how it is being tested from safety point of view.	10	CO3
8	Explain in detail various tests performed on vehicles for the safety of occupants. 1.seat belt test 2.Airbag test	10	CO5
OR			
9	Explain in detail various tests performed on vehicles for the safety of occupants 1. Horn installation and testing procedure adopted by AIS. 2. Test need to qualify for brake hose	10	

10	<p>Explain in detailed</p> <ol style="list-style-type: none"> 1. The purpose of coast down test and how does it performed on vehicle. 2. As per IS 11852:2001 for brake test briefly explain the following points <ol style="list-style-type: none"> A. pre-requisite to perform the test B. How to the mean fully developed deceleration (MFDD) is calculated and also explain on which parameter it depends. 	20	CO4
11	<p>TATA-NEXON with 2 Airbags has achieved 5-star rating in global NCAP and become the first 5-star rated car in India in safety of Adult occupant protection. It has achieved 16.00 maximum marks out of 17.00.</p> <p>However the same hatchback achieved 2-star rating in child occupant protection safety. It has achieved 25 maximum marks out of 49.</p> <p>Comment on the below mentioned in detail.</p> <ol style="list-style-type: none"> A. vehicle's 5-star in Adult occupant protection B. Any additional safety features missing in TATA-Nexon which make it 2-star rated in child safety protection? C. Process followed to carry out testing of both adult and child occupant protection. 	20	CO5
OR			
12	<p>“Chevrolet Enjoy – NO Airbags” has achieved zero star in Adult occupant protection and 2 –star in child occupant protection the same car with driver side airbag has achieved 2-star in Adult occupant protection and 2-star in child protection.</p> <p>Comment on the following points in detail</p> <ol style="list-style-type: none"> A. Air-bags importance and function in “head on collision” in cars B. ISOFIX cars make the vehicle more safer for child safety C. Replacing Euro NCAP system instead Global NCAP 	20	CO5