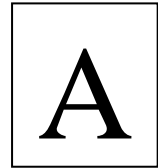




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SNS College of Technology, Coimbatore-35.
(Autonomous)
B.E/B.Tech- Internal Assessment -II
Academic Year 2023 – 2024 (Odd)
Fifth Semester



Automobile Engineering
19AUT302 – VEHICLE DYNAMICS AND STRUCTURES

Time: 1^{1/2} Hours

Maximum Marks: 50

Answer All Questions

PART - A (5 x 2 = 10 Marks)

	CO	Blooms
1 Analyze the magic formulae tire model	CO2	Ana
2 Classify the various road tests performed on tire	CO2	Ana
3 Inspect the human response to vibration	CO3	Ana
4 Compare passive suspension system with active suspension system	CO3	Ana
5 Identify the key features of Skyhook damping	CO3	Ana

PART – B (40 Marks)

6 (a) Analyze in detail about the estimation of tire road friction	13	CO2	Ana
(or)			
(b) Examine in detail about the tests performed on various road surface for estimating the tire performance	13	CO2	Ana
7 (a) Analyze the Passive Suspension system by the use of Quarter Car model with a neat sketch	13	CO3	Ana
(or)			
(b) Examine the sources of vibrations in an Automobile and also explain its preventive measures to provide comfort ride.	13	CO3	Ana
8. (a) Analyze the various reasons for tire vibrations in detail.	14	CO2	Ana
(or)			
(b) Inspect the key features and working of Air Suspension system in detail with a neat sketch and also explain its properties.	14	CO3	Ana