VIT
Vellore Institute of Technology

Final Assessment Test – April 20[illegible]

Course: MEE1036 - Automotive Chassis
Class NBR(s): 2655
Time: Three Hours

Slot: [illegible]
Max. Mar[illegible]

PART – A (5 X 12 = 60 Marks)
Answer any FIVE Questions

1. List down the various type of vehicle frames and explain in detail with suitable sketches.
2. Identify the type of steering gear used in light commercial vehicle. Discuss the construction and working principle of the same. Compare with the different types of steering gears with appropriate sketch.
3. Choose the type of drive shaft used in the small passenger car and enumerate the operational procedure with necessary diagrams.
4. Elaborately discuss the type of truck front tyre and its construction, load index and speed index of the same tyre with necessary sketches.
5. Explain with a justification on the usage of antilock braking system in the modern cars. Also explain the working of ABS with a neat schematic sketch.
6. Describe the different types of loads acting on light commercial drive axles. Also explain the type of rear axle and its significance over others.

PART – B (2 X 20 = 40 Marks)
Answer ALL Questions

7. The distance between the king-pins of a car is 1.3 m. The track arms are 0.1525 m long and the length of the track rod is 1.2 m. For a track of 1.42 m and a wheel base of 2.85 m, find the radius of curvature of the path followed by the near-side front wheel at which correct steering is obtained when the car is turning to the right. Also draw the steering error curve.
8. What is mean by drive by wire system? Explain the different types of drive by wire system technology with a neat sketch.

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