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Kharghar, Navi Mumbai - 410 210.

DEPARTMENT OF MECHANICAL ENGINEERING

VISION

"To incorporate technical & professional skills in Mechanical Engineers to full-fill industrial & social needs".

MISSION

- *To educate, guide, and mentor the students for academic excellence.*
- *To develop technical skills and discipline among the students as per the requirement of*

Subject Name: Automobile Engineering (315372) **Date :-**

Assignment No :- 1 **Course Outcome: 503.1**

Topic Name :- Introduction to Automobiles

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1. **Classify the Automobiles**
2. **State the vehicle layouts with diagrams.**
3. **States loads acting on the frames**
4. **Electric vehicles components and their functions**
5. **Hybrid vehicles components and their functions**

Date of Submission:-

Assign By :- Mr. Vishal Sagvekar

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Subject Name: Automobile Engineering (315372) **Date :-**

Assignment No :- 2 **Course Outcome: 503.2**

Topic Name :- Automobile Transmission System

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1. **Explain construction and working of single plate clutch.**
2. **Explain construction and working of constant mesh gear box**
3. **Explain construction and working of torque converter**
4. **Draw diagram of propeller shaft with proper label & state function of universal joint and slip joint**
5. **Draw diagram of Differential and Final drive with proper label and state function of both**

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Subject Name: Automobile Engineering (315372) **Date :-**

Assignment No :- 3 **Course Outcome: 503.2**

Topic Name :- Automobile Control Systems

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1. **State requirements of braking**
2. **Explain construction and working of any one type of brake**
3. **Construction and working of master cylinder**
4. **Define castor, camber, toe-in & toe-out with proper diagram**
5. **Construction and working of hydraulic power steering**

Date of Submission:-

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Subject Name: Automobile Engineering (315372) **Date :-**

Assignment No :- 4 **Course Outcome: 503.4**

Topic Name :- Automobile Suspension, Wheels and Tyres

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1. **Describe construction of McPherson suspension system with neat sketch**
2. **Construction and working of Telescopic shock absorber**
3. **Differentiate between tube and tubeless tyre**
4. **Explain procedure of wheel balancing and wheel alignment**
5. **State tyre designation with example and states factors affecting tyre life**

Date of Submission:-

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Subject Name: Automobile Engineering (315372) **Date :-**

Assignment No :- 5 **Course Outcome: 503.5**

Topic Name :- Introduction to Auto Electrical Systems

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1. **Explain with a neat sketch starting system.**
2. **Explain working principle and construction of Lead Acid battery with a neat sketch.**
3. **State the types and function of sensors in automobiles.**
4. **Explain any one type of ignition system.**
5. **Explain alternator components and their functions**

Date of Submission:-

Assign By :- Mr. Vishal Sagvekar