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Kharghar, Navi Mumbai - 410 210.

DEPARTMENT OF MECHANICAL ENGINEERING

Vision:-

"To incorporate technical & professional skills in Mechanical Engineers to fulfill 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 the industry.
- To impart ethics & social values by arranging social activities.

Sub: Automobile Engineering (AEN)(22656) Dt.
Assignment No. 01 Course Outcome: prepare vehicle layout with chassis specifications.
Topic Name: Introduction to Automobiles

Q.1. Draw the four wheeler chassis layout and show the major components on it.?

Q.2. List any six types of Automobile power plants and explain any one with neat sketch?

Q.3. State the importance of Aerodynamic body shapes in car and write any four advantages of it?

Q.4. Compare front engine rear wheel drive with front engine front wheel drive?

Q.5. Give detail classification of Automobiles with one examples of each?

Q.6. State the advantages of LPG and CNG operated vehicles.

Q.7. State and Explain the different forces acting on the vehicle body related to Aerodynamics.

Date of Submission: Subject Incharge: Mr. Jaslok Pandey (HOD Mechanical Engineering)

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Sub: Automobile Engineering (AEN)(22656) Dt.
Assignment No. 02 Course Outcome: Interpret power flow diagram for automobiles
Topic Name: Automobile Transmission system

Q.1. Explain with neat sketch the working of semi floating axle?

Q.2. Explain the construction and working of differential with simple sketch?

Q.3. Explain the construction and working of diaphragm type plate clutch?

Q.4. Explain the Construction and Working of Constant mesh Gear Box?

Q.5. Explain the Construction and Working of Synchromesh mesh Gear Box?

Q.6. Define Steady, Unsteady, Uniform and non-uniform flow with examples?

Q.7. Explain with sketch construction and working of epicyclic gear box?

Q.8. Explain with neat sketch, working of Overdrive?

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Sub: Automobile Engineering (AEN)(22656) Dt.
Assignment No. 03 Course Outcome: Select suitable braking and steering mechanism
Topic Name: Automobile Control System

Q.1. Explain the construction and working of master cylinder?

Q.2. Explain the construction of working of Rack and pinion type steering gear box?

Q.3. Explain wheel geometry: 01. Castor 2. Camber 03. Toe-in 4) Toe-out 5) King pin inclination

Q.4. Differentiate between Disc Brake and Drum Brake?

Q.5. Differentiate between Hydraulic Brake and Puneumatic Brake?

Q.6. Explain the construction of working of recirculating ball type steering gear box?

Q.7. draw the layout of air braking system? Expalin its working?

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Sub: Automobile Engineering (AEN)(22656) Dt.
Assignment No. 04 Course Outcome: Select the suspension system for Vehicles.
Topic Name: Automobile suspension, wheels and Tyres

Q.1. Expalin the necessity of suspension system in automobiles?

Q.2. Expalin the air suspension with neat sketch?

Q.3. Describe the working of Mac-Pharson suspension system with neat sketch?

Q.4. List the various types of rims used in the automobiles?

Q.5. Expalin the Procedure of wheel balancing of car?

Q.6.Comapre Radial tyre with cross ply tyre?

Q.7. Sketch the telescopic shock absorber and label it?

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Sub: Automobile Engineering (AEN)(22656) Dt.
Assignment No. 05 Course Outcome: prepare the electric circuit for automobiles.
Topic Name: Automobiles Electrical and Electronics System

Q.1. Expalin with neat sketch Bendix Drive?

Q.2. Expalin the ratting of battery recommended by SAE?

Q.3. Explain different colour codes used in the automobiles system?

Q.4. Sketch and explain working of Fuel level gauge?

Q.5. Explain the Electronic ignition system with sketch?

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Sub: Automobile Engineering (AEN)(22656) Dt.
Assignment No. 06 Course Outcome: Select service tools for automobiles.
Topic Name: Motor vehicle Act, Road safety and Garage Practices

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Q.1. Draw the general Layout of RTO?

Q.2. Describe in brief different passenger safety adopted in Modern vehicle?

Q.3 State the need of ABS. Draw the typical layout of ABS?

Q.4. Write the silent features of motor vehicle act 1989? Draw any four traffic signs and state their meaning?

Date of Submission: Assign by: : Mr. Jaslok Pandey (HOD Mechanical Engineering)