



Assignment Unit-1

CO-1:- To interpret the functions, constructional features of chassis and working of clutches and brakes.

Q1/CO1. What do you understand by automobile? Categorize the vehicle according to position of engine and its drive.

Q2/CO1. Describe Non-conventional or frameless chassis. How does it differ from frame-full chassis?

Q3/CO1. Explain types of chassis Frames, with their advantages and disadvantages.

Q4/CO1. Describe the functions of Chassis and its operating conditions.

Q5/CO1. Identify various material used for Vehicle frame. Also explain why Al is preferred over steel.

Q6/CO1. Describe the constructional features and working of semi-centrifugal clutch with help of neat clean diagram.

Q7/CO1. With the help of suitable sketch, explain the principle and working of hydraulic brakes. Mention the advantages of hydraulic brakes over Mechanical Brakes.

Q8/CO1. Draw the labeled diagram of single plate and multiplate clutch. Also Identify the Key points which differentiate them.

Q9/CO1. With the help of neat sketch explain the construction and working of Fluid coupling.

Q10/CO1. Discuss the benefits and limitations of Electromagnetic clutches in detail.



Assignment Unit-2

CO-2:- To describe the working of transmission system with their necessity and application.

Q1/CO2. Express the construction and working of constant mesh gear box.

Q2/CO2. Discuss the working and salient features of Hotchkiss drive with a neat diagram.

Q3/CO2. Interpret construction and working of hydraulic torque converter with the help of neat sketch.

Q4/CO2. Describe construction and working of a differential.

Q5/CO2. Express the working and salient features of all wheel drive with a neat diagram.

Q6/CO2. Discuss the construction and working of synchromesh gear box.

Q7/CO2. Write shorts Notes on Propeller Shaft with a neat diagram.

Q8/CO2. Discuss the construction and working of epicyclic gear box.

Q9/CO2. Write shorts Notes on Universal joint with a neat diagram.

Q10/CO2. Explain the Overdrive in automobile.



Assignment Unit-3

CO-3:- To analyze tyres, steering system and geometry with utility of suspension system.

Q1/CO3. What is the function of wheel in an automobile? Describe the types & constructional features of tyre.

Q2/CO3. What do you mean by Tyre Retreading?

Q3/CO3. Write the causes which reduce the tyre life.

Q4/CO3. Explain the following terms -

- (i) Caster
- (ii) Camber

Q5/CO3. Explain the working of power steering.

Q6/CO3. List the objectives and requirements of suspension system in automobiles.

Q7/CO3. Discuss in detail the Ackermann steering mechanism.

Q8/CO3. Demonstrate leaf Spring suspension system with diagram.

Q9/CO3. Explain briefly what are the various types of springs used in suspension system.

Q10/CO3. What is Wheel Balancing?



Assignment Unit-4

CO-4:- To identify automotive electrical system, ignition system and requirement of automotive lighting, air conditioning and safety.

Q1/CO4. Describe the construction and working of lead acid battery with diagram.

Q2/CO4. Explain magneto ignition system with help of neat sketch.

Q3/CO4. Explain the starting and Battery charging system. Discuss the general maintenance requirements in this system.

Q4/CO4. Describe the construction and working of electric horn with diagram.

Q5/CO4. Explain battery ignition system with help of neat sketch.

Q6/CO4. Explain the wiring diagram of a typical passenger car lighting system with neat sketch.

Q7/CO4. Describe the principle of electric drive? Explain its advantages and limitation.

Q8/CO4. Describe the construction and working of Starter motor with help of labeled diagram.

Q9/CO4. Explain in detail various methods of battery testing with help of neat and clean sketch.

Q10/CO4. Describe the construction and working of fuel level indicator with diagram.



Assignment Unit-5

CO-4 :- To identify automotive electrical system, ignition system and requirement of automotive lighting, air conditioning and safety.

Q1/CO4. List the common fault related to automotive air conditioning system. How these faults are diagnosed and rectified.

Q2/CO4. Draw the layout of the air conditioning system for a car.

Q3/CO4. Define refrigerants. Explain different types of refrigerant.

Q4/CO4. Define air conditioning. Identify automotive air conditioning system. Explain its components.

Q5/CO4. Explain the working of Night Vision System (NVS).

Q6/CO4. Enumerate the different loads on automotive air conditioning system and explain its working.

Q7/CO4. Explain the working of Global Positioning System (GPS).

Q8/CO4. Summarize the safety regulations in India for automotive safety.

Q9/CO4. Explain the requirements of safety devices in automotive safety.

Q10/CO4. Write short Notes on –

(1) Air bags

(2) Radio ranging