

Government Polytechnic Mayurbhanj, Tikarpada

CHAPTER WISE QUESTIONS BANK

SUBJECT:- AUTOMOBILE ENGINEERING AND HYBRID VEHICLE (C311)

Chapter-1 (INTRODUCTION)

2mrks question

1. State the meaning of Automobile.
2. Draw the layout of Automobile chassis and show the major part.
3. Define the chassis of Automobile.
4. State the major part of transmission system of automobile.
5. State the function of clutch and its type.
6. State the function of gearbox and its types.
7. State the application of differentiator mechanism of Automobile.

5marks question

1. Draw the layout of chassis of a truck and show the major components of the chassis
2. Compare the single plate clutch and multi plate clutch.
3. Compare the standing mesh gear box with constant mesh gear box
4. Compare the constant mesh gear box with synchromesh gear box.
5. State construction features of the propeller shift.

10 marks question

1. Explain the construction and working principle of any 4 speed gear box with neat sketch.
2. Explain the need and working principle of differential mechanism with neat sketch.

CHAPTER -2 (BRAKING SYSTEM)

2 marks question

1. State is the function of braking system.
2. State the type of braking system.
3. Which principle is applied in the hydraulic braking system.
4. State the meaning of Vacuum pressure.

5marks question

1. Explain the working principle of mechanical braking system.
2. Explain the working principle of air braking system.
3. Explain the working principle of vacuum braking system.
4. Compare the hydraulic braking system with air braking system.

10 marks question

1. Explain the working principle of hydraulic braking system with neat sketch.
2. Explain the working principle of Air-assisted hydraulic braking system.

CHAPTER-3(IGNITION & SUSPENSION SYSTEM)

2 marks question

1. State the meaning ignition system and state its type.
2. State need of spark plugs.
3. State the meaning suspension system and its types.

5 marks question

1. Explain the battery ignition system with neat sketch.
2. Explain the magneto ignition system with neat sketch.
3. Compare the battery ignition system with magneto ignition system.
4. State the purpose construction and feature of spark plug.
5. Explain the independent suspension system using coil spring and tension bar.

10 marks question

1. State common ignition troubles and its remedies.
2. State construction at features and working principle of telescopic shock absorber.

CHAPTER-4(COOLING AND LUBRICANTS)

2 Marks question

1. State the need of cooling system of the automobile vehicle & its types.
2. State the need of lubrication system of the automobile and its types.

5 Marks question

1. State the defects of cooling and remedies.
2. State the working principle lubrication system if IC engine with neat sketch.

CHAPTER-5.0(FUEL AND SYSTEM)

2 Marks question

1. State the air fuel ration of the petrol engine.
2. Define the carburettor.
3. State the meaning of carburetion process and its types.

5 Marks question

1. Describe carburetion process for petrol engine.
2. State the multipoint fuel injection system.

10 Marks question

1. Explain the working principle of fuel injection system for multi cylinder engine with sketch.
2. Explain working principle of fuel injection system.

CHAPTER-6.0 (ELECTRIC AND HYBRID VEHICLES)

2Marks Question

1. State the meaning of Hybrid vehicle.
2. State the social and Invernoirmental importance of Hybrid and Electric vehicle.
3. Classification Hybrid vehicle
4. State drive train.

5Marks Question

- 1. State the advantages and disadvantage of Hybrid vehicle.**
- 2. Explain the series Hybrid vehicles**
- 3. Explain the parallel hybrid vehicles**

10Marks Question

- 1. Explain the series and parallel hybrid vehicle with neat sketch.**
- 2. Explain about solar power vehicles**

