

C.V. RAMAN POLYTECHNIC, BHUBANESWAR

DEPARTMENT OF MECHANICAL ENGINEERING

SUB-AUTOMOBILE ENGINEERING

CHAPTER-1

1. INTRODUCTION OF AUTOMOBILE

2 MARKS QUESTIONS

1. (a) State the meaning of Automobile
- (b) What is the function of clutch
- (c) State the types of clutch
- (d) What is the function of gear and state the types of gear box
- (e) What is the function of differential mechanism

2. 5 marks questions

- (a) Draw the Automobile chassis and describe the major components of this
- (b) Write down about function of propeller shaft
- (c) Describe the working principle of differential mechanism with neat sketch

3. 10 marks questions

- (a) Describe the working principle any 4th speed gear box with neat sketch
- (b) State the working principle single plate clutch with neat sketch
- (c) State the working principle multi plates clutch with neat sketch

CHAPTER-2

Braking system

2 marks question

1. (a) What is function of braking system
- (b) State the types of braking system
- (c) State the drawback of hydraulic braking system
- (d) What is the meaning vacuum pressure

5 marks questions

2. (a) State the working principle of mechanical braking system with neat sketch
- (b) State the working principle air braking system with neat sketch
- (c) State the working principle of Vacuum braking system

10 marks questions

3. (a) State the working principle of Hydraulic braking system with neat sketch
- (b) State the working principle of Air assisted Hydraulic braking system with neat sketch

CHAPTER-3

IGNITION & SUSPENSION SYSTEM

2marks question

1. (a) State the types of ignition system
- (b) What is the meaning of suspension system
- (c) State the types of suspension system

5marks questions

2. (a) Describe the battery ignition system with neat sketch
- (b) Describe the magnet ignition system with neat sketch
- (c) State the common ignition troubles and its remedies
- (d) Write down short note on coil spring

3. 10 marks questions

- (a) Describe construction features and working of a telescopic shock absorber

CHAPTER-4

COOLING AND LUBRICATION:

2marks question:

1. (a) State the need of cooling system
- (b) State the need of lubrication system
- (c) State the type of cooling system
- (d) State the type of lubrication system

5marks questions

2. (a) Describe the defects of cooling and their remedies.
- (b) Describe the water cooling system
- (c) Describe the function of lubrication system

3. 10 marks questions

- (a) Describe the function of lubrication system of IC engine

CHAPTER-5

FUEL SYSTEM

2marks question:

- 1 (a) State the type of air fuel ratio
- (b) State the type of carburetion process

5 marks questions

2. (a) Describe the carburetion process of petrol engine
- (b) Describe the working principle of fuel feed pump of diesel engine
- (c) Describe the working principle of fuel injector of diesel engine
- (d) Describe the properties of fuel

3. 10 marks questions

- (a) Describe the working of various carburetor with neat schematic diagram
- (b) Describe the multi fuel injection system of petrol engine
- (c) Describe the working principle of multi fuel injection system of Diesel engine

CHAPTER -6

HYBRID ELECTRIC VEHICLES

2marks question:

1. (a) What is the meaning of hybrid vehicle
- (b) Types of hybrid vehicles
- (c) what is the meaning of plug in hybrid vehicle

5 marks questions

- 2 (a) Describe the construction features and working of series hybrid vehicle
- (b) Describe the construction features and working of parallel hybrid vehicle

3. 10 marks questions

- (a) State the working principle combined of series and parallel hybrid vehicle

