

- Q.25 What are the common faults in transmission? (CO-5)  
 Q.26 Give a detailed classification of gear boxes. (CO-4)  
 Q.27 Describe the concept of Automated Manual Transmission (AMT). (CO-6)  
 Q.28 Explain semi-floating axle with neat sketch. (CO-8)  
 Q.29 Explain the construction of Hotchkiss drive. (CO-7)  
 Q.30 What is propeller shaft? Explain functions and construction of a propeller Shaft. (CO-8)  
 Q.31 Write a short note on types of rear axles. (CO-7)  
 Q.32 Draw the labeled layout of steering system linkages. (CO-9)  
 Q.33 Explain over steering and under steering. (CO-9)  
 Q.34 Explain any one type of steering gear box. (CO-9)  
 Q.35 Describe toe-in and toe-out. (CO-7)

### **SECTION-D**

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)  
 Q.36 What is the method of vehicle air conditioning? Explain in detail the construction and working principle? (CO-2)  
 Q.37 Explain the construction and working of centrifugal clutch. (CO-3)  
 Q.38 Explain construction and working of sliding mesh gear box. (CO-4)

No. of Printed Pages : 4 180343/170343/  
 Roll No. .... 120343/030343

**4th Sem / Branch :Automobile Engineering  
Sub.: Chassis Body & Transmission-I**

Time : 3Hrs. M.M. : 100

### **SECTION-A**

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Which of the following is a classification of automobiles based on Load? (CO-1)  
 a) Heavy transport vehicle (HTV)  
 b) Sedan Hatchback car  
 c) Four wheeler vehicle  
 d) Front-wheel drive  
 Q.2 Which of the following parameter is not necessary for the description of an automobile? (CO-1)  
 a) Model b) Colour  
 c) Capacity d) Type  
 Q.3 Why “Bumpers” are used in cars? (CO-2)  
 a) To reduce the impact in case of low speed collisions  
 b) To improve the aerodynamics of a car  
 c) To increase the engine performance  
 d) None of the mentioned  
 Q.4 Which of the following parts of the cover assembly that hold the pressure plate against the clutch plate? (CO-3)

Q.10 What is the purpose of the reciprocating ball type steering gear? (CO-9)

- a) To reduce the operating cost
  - b) To reduce the number of parts
  - c) To reduce the operating friction
  - d) To reduce the toe-out during the turns

## **SECTION-B**

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Write name of a truck manufacturer in India. (CO-1)  
Q.12 Describe VIN. (CO-2)  
Q.13 Write the material used for the construction of Chassis frame. (CO-2)  
Q.14 Classify clutch linkages. (CO-3)  
Q.15 Give the purpose of clutch pedal free play. (CO-3)  
Q.16 Define gear ratio. (CO-4)  
Q.17 Where is the transfer box used? (CO-6)  
Q.18 Give name of types of rear axle. (CO-7)  
Q.19 Write the function of front axle. (CO-8)  
Q.20 Define mechanism. (CO-9)

## **SECTION-C**

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Give classification of Automobiles. (CO-1)

Q.22 Explain the body streamlining of cars. (CO-2)

Q.23 What type of components are mounted on chassis frame? (CO-2)

Q.24 Write any five requirements of a good clutch. (CO-3)