

- 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)

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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)

- a) Lever b) Thrust bearings
c) Struts d) Springs
- Q.5 Where is the clutch located? (CO-4)
a) Between transmission and engine
b) Between transmission and rear axle
c) Between transmission and propeller shaft
d) Between transmission and differential
- Q.6 Which of the following is not part of automatic transmission? (CO-5)
a) Epicyclic gearbox
b) Torque convertor
c) Sliding mesh gearbox
d) Multiplate clutch
- Q.7 Which types of gears are used in constant mesh gearbox? (CO-6)
a) Spur gear b) Helical gear
c) Bevel gear d) Worm gear
- Q.8 Which of the following is the disadvantage of the open differential? (CO-7)
a) High in cost
b) Not reliable
c) Complex design
d) Sends most of the power to the wheel having less traction
- Q.9 What is the need of the universal joint? (CO-7)
a) To change inclination
b) To bend sideways
c) To transfer torque at an angle
d) To change length

- 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)