

- Q.23 Give the constructional details of car body. (CO2)
 Q.24 What is the requirements of good clutch? (CO3)
 Q.25 What is the working principal of friction clutch. (CO3)
 Q.26 Write a short note on synchromesh gear box. (CO4)
 Q.27 Write the functions of transmission system. (CO5)
 Q.28 Explain the function and principle of differential. (CO6)
 Q.29 Give the constructional details of universal joint. (CO7)
 Q.30 Explain Torque tube drive. (CO8)
 Q.31 Give the constructional detail of front axle. (CO8)
 Q.32 State function of steering mechanism. (CO9)
 Q.33 Give common faults their cause and remedies in steering system. (CO9)
 Q.34 Explain Ackerman steering mechanism. (CO9)
 Q.35 Describe various components of a steering system. (CO9)

SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
 Q.36 Explain the types of drives used in vehicles. Explain the merits and demerits of each drive. (CO2)
 Q.37 State the principle of single plate clutch and explain its construction and working. (CO3)
 Q.38 Explain the construction and working of Epicyclic gear box with neat diagram. (CO4)

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4th Sem / Auto Subject:- Chassis, Body and Transmission - 1

Time : 3Hrs. M.M. : 100

SECTION-A

- Note:** Multiple choice questions. All questions are compulsory (10x1=10)
 Q.1 Which of the following automobile has two/four doors? (CO1)
 a) Convertible
 b) Special purpose vehicles
 c) Pickups
 d) Sedan
 Q.2 Which of the following type of load is supported by an automobile frame? (CO2)
 a) Torque from engine and transmission
 b) Sudden impacts from collisions
 c) Weight of the body, passengers and cargo loads
 d) All of the mentioned
 Q.3 Which of the following parts does not include an automobile chassis? (CO2)
 a) Differential b) Brakes
 c) Steering system d) Shock absorbers
 Q.4 A clutch is usually designed to transmit maximum torque which is (CO3)

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- a) equal to the maximum engine torque
 - b) 80 per cent of the maximum engine torque
 - c) 150 per cent of the maximum engine torque
 - d) none of these
- Q.5 If there are 7 clutch plates in a multi-plate clutch, what is the number of pair of contact surfaces? (CO3)
- a) 5 b) 4
 - c) 6 d) 8
- Q.6 Which of the following is not a part of the transmission system? (CO4)
- a) Clutch b) Wheels
 - c) Gear box d) Axles
- Q.7 Transfer case is located next to the gearbox in (CO5)
- a) Front wheel drive b) Rear wheel drive
 - c) Four wheel drive d) All of the above
- Q.8 Which types of joints are used when the shafts are inclined? (CO6)
- a) Universal joint
 - b) Hinge joint
 - c) Ball and socket joint
 - d) Pivot joint
- Q.9 What is the angle between the steering axis and the vertical in the plane of the wheel? (CO9)
- a) Castor
 - b) Camber
 - c) Steering axis inclination
 - d) Kingpin inclination

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- Q.10 What is the purpose of the reciprocating ball type steering gear? (CO9)
- 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 Name any one manufacturer of scooters in India. (CO1)
- Q.12 Write the function of seat belt. (CO2)
- Q.13 Name any two types of frames. (CO2)
- Q.14 Write down any two clutch faults. (CO3)
- Q.15 Name any one material used for friction lining in clutch plate. (CO3)
- Q.16 What is the purpose of gear selector mechanism? (CO4)
- Q.17 Write the function of torque convertor. (CO5)
- Q.18 Write the function of a universal joint. (CO5)
- Q.19 Describe dead axle. (CO8)
- Q.20 Define power steering. (CO9)

SECTION-C

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

- Q.21 Write a short note on brief history of automobiles in India. (CO1)
- Q.22 Draw the labeled layout of rear wheel drive. (CO2)

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