

QP Code : 6275

(3 Hours)

Total Marks : 80.

NB.

- Note:
1. Question No. 01 is compulsory.
 2. Attempt any three questions from remaining five questions.
 3. Draw neat and labeled diagram wherever necessary.

Q.01) Attempt any five questions out of six.

- a) Explain whirling of shaft. [04]
- b) Write short note on functional requirements of clutch. [04]
- c) Write short note on automatic transmission. [04]
- d) Write short note on worm & wheel type steering gear. [04]
- e) Write short note on drum brake. [04]
- f) Explain types of wheel. [04]

- Q.02)
- a) Explain types of clutch. Also explain working of any one type of clutch. [08]
 - b) What is the drawback of sliding mesh gear box? Explain working of synchromesh gear box. [08]
 - c) Compare dependent & independent suspension. [04]

- Q.03)
- a) Explain any one type of gear shifting mechanism used in automobile. [08]
 - b) Explain following terms: [08]
 1. Toe in, 2. Camber, 3. King Pin Inclination, 4. Combined angle
 - c) Write short note on McPherson strut suspension. [04]

- Q.04)
- a) Explain tyre construction in detail. [08]
 - b) Explain need of differential & its basic principle of working. [08]
 - c) Write short note on electric power steering. [04]

- Q.05)
- a) Explain the need of slip joint & universal joint in Hotchkiss drive. [08]
 - b) Explain different types of brake systems used in automobile. [08]
 - c) Write short note on centrifugal clutch. [04]

- Q.06)
- a) What is the limitation of mechanical brake system? Also explain need & procedure for brake bleeding. [08]
 - b) What are drawbacks of single plate clutch? Explain working & application of multiplate clutch. [08]
 - c) Write short note on transfer case. [04]