

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (AE) (Sem.-5)
AUTOMOTIVE TRANSMISSIONS
Subject Code : AE-303
Paper ID : [A0714]

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

- 1. SECTION-A is COMPULSORY.**
- 2. Attempt any FOUR questions from SECTION-B.**
- 3. Attempt any TWO questions from SECTION-C.**

SECTION-A

(10 × 2 = 20 Marks)

1. (a) What do you understand by tractive effort.
(b) What is the need of clutch in the automobile?
(c) What is the material of clutch facing?
(d) What is a Synchronizer?
(e) What is an overdrive?
(f) What are the main components of torque convertor?
(g) What is a hydrostatic drive?
(h) What is a coupling point?
(i) What causes the clutch to slip?
(j) What is meant by automatic transmission?

SECTION-B

(4 × 5 = 20 Marks)

2. Discuss the requirements of a transmission system.

3. Differentiate between dry and wet type clutch.
4. Describe the principle of operation of a torque converter.
5. Compare the hydrostatic drive with hydrodynamic drive.
6. Explain the drive system of a hybrid vehicle with a line diagram.

SECTION-C

(2 × 10 = 20 Marks)

7. Explain the working of multiplate clutch with the help of a simple sketch.
8. Discuss the construction and working of a transfer box with a line diagram.
9. Write note on hydraulic activation system.