Roll No.							

Total No. of Pages: 01 Total No. of Questions: 09

B. Tech (AE) (Sem.-5th) AUTOMOTIVE TRANSMISSIONS

Subject Code: BTAE-502 Paper ID: [A2062]

Time: 3 Hrs. Max. Marks: 60

INSTRUCTIONS TO CANDIDATE:

- 1. Section –A, is Compulsory.
- 2. Attempt any four questions from Section-B.
- 3. Attempt any two questions from Section-C.

Section -A

- **Q.1.**(a) Define tractive effort.
 - (b) How transmission system is classified?
 - (c) Why are clutch friction plate perforated.
 - (d) What causes the clutch to slip?
 - (e) Where a transfer box is used in transmission system
 - (f) What is a compound gear train?
 - (g) What is a torque converter?
 - (h) What do you understand by hydrodynamic drive?
 - (i) What is the function of stator in torque converter?
 - (j) What is meant by dual clutch transmission?

10x2=20

Section –B

- **Q.2**. Discuss the requirements of transmission system.
- **Q.3.** Discuss the desired features of an automobile clutch.
- **Q.4.** Differentiate between constant mesh and sliding mesh gear box.
- **Q.5.** Discuss the principle of hydrostatic drive system
- **Q.6.** Explain the working of an overdrive.

4x5 = 20

Section –C

- **Q.7**. Describe a fully centrifugal clutch with the help of a sketch.
- Q.8. Discuss the principle of operation and construction of a fluid coupling.
- **O.9**. Write a note on automatic transmission.

2x10=20

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