

Roll No. Total No. of Pages: 02

Total No. of Questions: 18

B.Tech. (AE) (2012 to 2017) (Sem.5) AUTOMOTIVE TRANSMISSIONS

Subject Code: BTAE-502 M.Code: 70485

Time: 3 Hrs. Max. Marks: 60

#### **INSTRUCTION TO CANDIDATES:**

- 1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
- 3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

### **SECTION-A**

# Write briefly:

- 1. Write short note on need of transmission system.
- 2. Depending on vehicle type give the location of transmission system.
- 3. What are different modes of operation of clutch?
- 4. Illustrate dual clutch transmission.
- 5. Give examples for transaxles.
- 6. How drag torque is reduced?
- 7. Define fluid coupling
- 8. What are limitations of hydrostatic drive system?
- 9. What is principle of modified ward Leonard control system?
- 10. Write about ECT-i.

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#### **SECTION-B**

- 11. Classify transmission system. Brief each.
- 12. Describe the dry and wet types of clutch.
- 13. What are performance characteristics of converter coupling?
- 14. What are advantages and limitations of electric drive?
- 15. Explain the power and economy modes in gearbox.

# **SECTION-C**

- 16. With help of block diagram describe Chevrolet "Turbo-glide" transmission.
- 17. Explain the construction detail of fluid coupling with neat diagram.
- 18. a) Compare the hydrostatic drive with hydrodynamic drive.
  - b) Illustrate the mechanical link gear shifting mechanism.

NOTE: Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

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