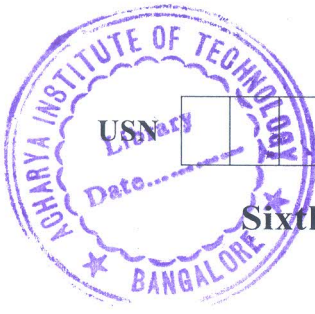


# CBCS SCHEME

15AU64



## Sixth Semester B.E. Degree Examination, July/August 2021 Automotive Transmission

Time: 3 hrs.

Max. Marks: 80

**Note: Answer any FIVE full questions.**

- 1 a. List and explain the requirement of a good clutch. (08 Marks)  
b. Explain the principle and working of a single plate clutch with neat sketch. (08 Marks)
- 2 a. Compare single plate clutch Vs Multiplate clutch. (06 Marks)  
b. List and explain the clutch troubles and their causes. (10 Marks)
- 3 a. Discuss the constructional features of a fluid coupling with line diagram. (08 Marks)  
b. Explain the working of a overrunning clutch with figure. (08 Marks)
- 4 a. Discuss the fluid requirements for smooth functioning of a fluid coupling. (06 Marks)  
b. Explain the working of any one type of Torque converter. (10 Marks)
- 5 a. Explain the various resistances acting on a vehicle with graphs and equations. (08 Marks)  
b. Explain the following terms : (08 Marks)
  - i) Traction
  - ii) Tractive effort
  - iii) Draw bar pull
  - iv) Gradiability.
- 6 a. Discuss the need of gear box in automobiles. (04 Marks)  
b. Explain the construction and working of a constant mesh gear box with figure. State the advantages. (12 Marks)
- 7 a. Explain the working principle of a simple planetary transmission system with figure. (08 Marks)  
b. Explain the following terms : (08 Marks)
  - i) Preselective mechanism
  - ii) Vacuum control.
- 8 a. Discuss the principle of hydraulic control in planetary gear system. (08 Marks)  
b. Illustrate the working of a overdrive system with figure. (08 Marks)
- 9 a. Explain the different systems of hydrostatic drives. (08 Marks)  
b. Explain the advantages and limitations of hydrostatic drives. (08 Marks)
- 10 a. Discuss the principle of automatic transmission. (06 Marks)  
b. Explain the construction and working of a basic four speed hydraulic control system. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.