

B.Tech. 5th Semester (AUE) F-Scheme

Examination, December-2017

POWER UNITS AND TRANSMISSION

Paper-AUE-307-F

Time allowed : 3 hours] [Maximum marks : 100

Note: Attempt five questions. Question number 1 is compulsory and attempt at least one question from each section.

1. Write short notes on the following:- 4 x 5 = 5
- (a) Different types of clutches
 - (b) Torque Converter
 - (c) Automatic overdrive
 - (d) Clutch hydraulic actuation system

Section - A

2. Explain the construction and torque capacity of the single plate clutch and also discuss its design aspects. 20
3. Discuss the conventional gearbox with neat sketch and its use. 20

Section - B

4. Explain the Fluid coupling along with its Principle of operation and constructional details. 20

5. Discuss the multistage torque converters with its uses and principle of operation. 20

Section - C

6. Discuss the role of Hydraulic control system for automatic transmission used in today vehicles. 20
7. Explain the construction and working of typical Janny hydrostatic drive with neat sketch. 20

Section - D

8. Discuss the modified Ward Leonard Control system along with its advantages and limitations. 20
9. Explain the working of Toyota – “ECT-I” automatic transmission with intelligent electronic control system. 20