

## VI SEMESTER DIPLOMA EXAM 2015

Subject - Power Electronics and Drives

Sub. Code - PED 12232

Time - 3 Hrs.

F. M. - 100

P. M. - 40

Answer any FIVE questions.

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1. Explain any one method of speed control of the following motors :
  - (a) Three-Phase I. M.
  - (b) D. C series motor
2. (a) Explain the principle of chopper operation.  
(b) Discuss the operation and working of class 'A', class 'B' and class 'C' chopper.
3. With the help of circuit diagram explain the working principle of single phase parallel inverter.
4. What is three phase bridge inverter ? Explain the working of three - phase 180 degree Mode VSI inverter.
5. Explain the I - V characteristics of a Thyristor.
6. Discuss the working and operation of single phase mid point cycloconverter with R-L load in series.
7. What do you mean by Thyristor Turn-On method ?  
Explain the gate triggering turn-on method of a thyristor.
8. Write short notes on any TWO of the followings :-
  - (a) Comparison of 3 - Phase and 1 - Phase converter.
  - (b) PWM method.
  - (c) Step-up choppers.
  - (d) D. C. servo motor.
  - (e) A. C. & D. C. drives.

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