

VI SEMESTER DIPLOMA EXAM 2014

Subject - Power Electronics & Drives

F. M. - 100

Sub. Code - PED 12232

P. M. - 40

Time - 3 Hrs.

- Answer any five questions.
- All questions carry equal marks.

1. What are the methods of thyristor turn-on? Explain them. - (20)

2. Draw the circuit of single phase fully controlled full wave convertor with R-L load and explain its working. Also draw waveforms of various voltage and current involved. (20)

3. What are series and parallel inverter? Draw their circuits and explain their operations.

4. Draw the circuit and explain the operation of two quadrants
(i) type C (ii) type D choppers.

5. Draw the circuit and explain the operation of single phase fully controlled converter drive for speed control of D.C. series motor.

6. With the help of circuit diagram, explain the operation of cycloconverter for speed control three phase induction motor.

7. Explain the principle of operation and working of three phase cyclo-inverters. (100°)

8. Write short notes on any two.

(a) Stepper motor

(b) Induction heating

(c) Single phase bridge converter

(d) Electric welding

(e) Control of single phase inverter

(f) V-I characteristics of SCR

