

- 8) IGBT is a _____ controlled device. (01)
- 9) Give definition of latching current. (01)
- 10) Write function of inverter. (01)
- 11) What is the function of free-wheeling diode? (01)
- 12) Give function of chopper. (01)
- 13) Enlist the different types of cyclo-converter. (01)
- 14) Write full form of GTO. (01)

Attempt any four questions from Q-2 to Q-8

Q-2 Attempt all questions (14)

- (a) Draw Structure and symbol of SCR and explain principle of SCR. (07)
- (b) Give various turn on methods of SCR. Explain any three methods. (07)

Q-3 Attempt all questions (14)

- (a) Give the comparison between power MOSFET and power BJT. (07)
- (b) Draw the structure and explain the operation of TRIAC in any two modes. (07)

Q-4 Attempt all questions (14)

- (a) Draw basic UJT structure, symbol and equivalent circuit and explain its circuit operation. (07)
- (b) Write short note on MOSFET. (07)

Q-5 Attempt all questions (14)

- (a) Explain principle of step-down chopper with necessary waveforms. (07)
- (b) Write short note on IGBT. (07)

Q-6 Attempt all questions (14)

- (a) Give the classification of chopper. Draw and explain basic dc chopper configuration. (07)
- (b) List triggering circuit and explain any one in detail. (07)

Q-7 Attempt all questions (14)

- (a) Draw and explain single phase full bridge inverters. (07)



- (b) Draw the circuit diagram and waveforms of three phase inverter with 120° conduction mode with resistive load and explain its operation. (07)

Q-8

Attempt all questions

(14)

- (a) List voltage control technique for inverter and explain any two in detail. (07)
- (b) Draw the circuit diagram of single phase to single phase cyclo-converter with resistive load and explain its operation with necessary waveforms. (07)

