(2)

- (e) Draw circuit diagram of three phase voltage source bridge types of Inverter.
- 2. (a) What are different turn on methods of a thyristor?
  - (b) What do you mean by di/dt protection and dv/dt protection of a thyristor?

DRIVER STORES OF STATE OF STREET STREET

- (a) What are different thyristor rating? Give its significance.
- (b) A thyristor operating from a peak supply voltage of 400 V has the following specifications.

Repetitive current Ip = 200 A, (di/dt)max = 50 A/microsecond, (dv/dt)max = 200 V/microsecond.

Choosing a factor of safety 2 for Ip, (di/dt) max and (dv/dt)max, design a suitable snubber circuit. The minimum value of load resistance is 10 ohm.

B.Tech-5th(EE)/Power Electronics(Set-22(I))

(Continued)

4

B.T

halved for constant frequency operation, find the new output voltage.

6.

(a) Explain the operation of a step up chopper with relevant diagram and waveform.

(b) Explain four quadrant operation of chopper.

5. (a) Explain the basic scheme of switch mode power supplies.

(b) Enlist major advantage of SMPS over linear supplies.

Or

(a) Give circuit of series dc-dc regulation. Describe how it works.

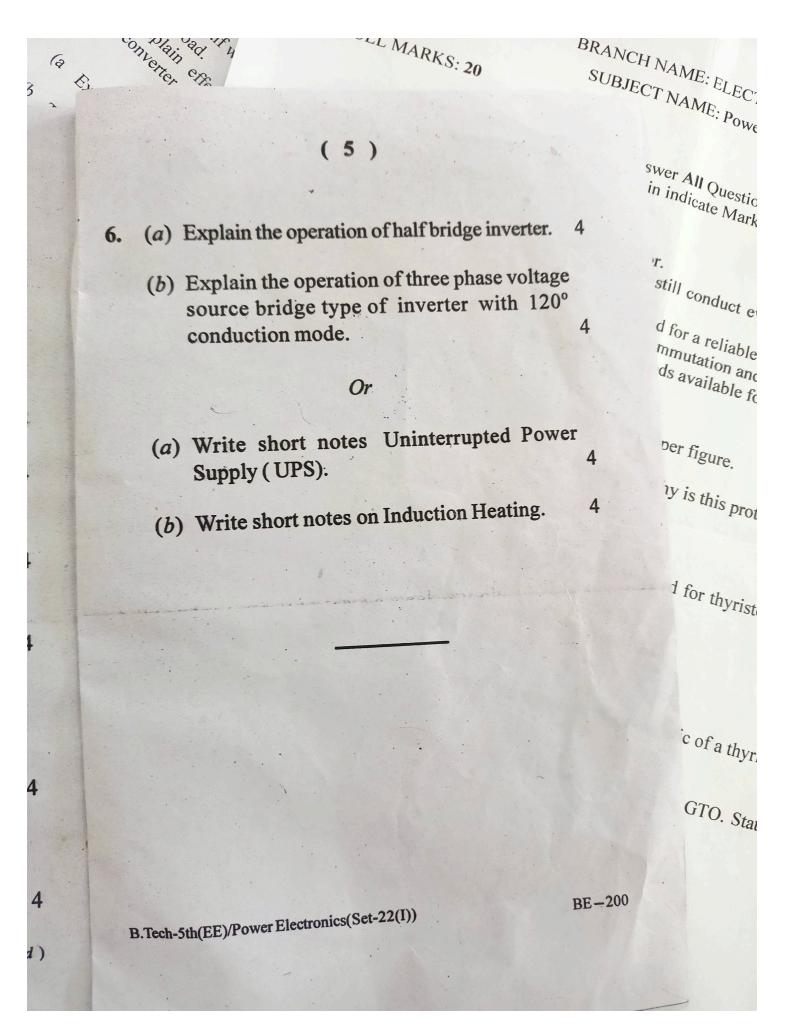
4

(Continued)

(b) Give 4 IC regulator of positive voltage regulator & 4 IC regulator negative voltage regulator.

B. Tech

B. Tech-5th(EE)/Power Electronics(Set-22(I))



## www.iitkirba.xyz