

Total No. of Questions : 4]

SEAT No. :

P8490

[Total No. of Pages : 2

Oct-22/BE/Insem-78

B.E. (Electronics Engg.)

ADVANCED POWER ELECTRONICS

(2019 Pattern) (Semester - VII) (404202)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates :

- 1) *Answer Q.1 or Q.2, Q.3 or Q.4.*
- 2) *Neat diagrams must be drawn wherever necessary.*
- 3) *Figures to the right indicate full marks.*
- 4) *Assume suitable data, if necessary.*

Q1) a) What is Dual Converter? With the help of neat circuit diagram and waveform explain operation of Three phase Dual Converter. **[8]**

b) Give comparative evaluation of Power Factor Improvement Scheme. **[7]**

OR

Q2) a) Define Power Factor. Explain Extinction Angle Control (EAC) power factor improvement Technique for single phase converter with circuit diagram, suitable waveform and Equations. **[8]**

b) Explain Ideal dual converter. **[7]**

Q3) a) With the help of circuit diagram and waveforms explain operation of 1Φ to 1Φ bridge type step down cycloconverter to get output frequency $1/3$ of the input frequency. **[8]**

b) State features, advantages and disadvantages of Diode Clamped Multilevel Inverter. **[7]**

P.T.O.

OR

- Q4)** a) Explain working of three phase to three phase cycloconverter with circuit diagram and Waveform. [7]
- b) With the help of neat circuit diagram and waveforms explain the working of Flying Capacitor Multilevel inverter. [8]

