

S. B. Roll. No.....

**POWER ELECTRONICS**  
**4<sup>th</sup> Exam/ECE/6163/Dec'22**  
**(For 2018 Batch Onwards)**

**Duration: 3Hrs.**

**M.Marks:75**

**SECTION-A**

**Q1. Do as directed.**

**15x1=15**

- a. What is thyristor?
- b. Full form of SCR \_\_\_\_\_
- c. Full form of TRIAC \_\_\_\_\_
- d. What is a rectifier?
- e. Define inverter.
- f. What is a chopper?
- g. What is a dual convertor?
- h. The output frequency of cycloconverter should be \_\_\_\_\_ of the input frequency.
- i. A step up chopper produces \_\_\_\_\_ voltage at the load.
- j. What is the speed of AC drive?
- k. What is the output frequency of cycloconverter drive?
- l. What is the full form of UPS?
- m. What is the full form of smps
- n. What does HvdC stands for?
- o. What are the types of ups?

**SECTION-B**

**Q2. Attempt any six questions.**

**6x5=30**

- i. What are the applications of SCR?
- ii. Define latching and holding current.
- iii. Write a short note on battery charger.
- iv. Write applications of rectifier.
- v. What do you mean by controlled rectifier?
- vi. What are the advantages of cycloconverter?
- vii. What do you mean by class a chopper?
- viii. Write a short note on DC drive.
- ix. What are the merits of HVDC?
- x. Write applications of SMPS.

**SECTION-C**

**Q3. Attempt any three questions.**

**3x10=30**

- a. Explain the construction and working of DIAC.
- b. Explain the working and construction of SCR.
- c. Draw and explain the circuits of single phase half wave controlled rectifier.
- d. Draw and explain the block diagram of dual converter.
- e. Explain the block diagram of SMPS.