

NETTUR TECHNICAL TRAINING FOUNDATION
DIPLOMA IN ELECTRICAL AND ELECTRONICS-CP23
VI SEMESTER REGULAR & SUPPLEMENTARY EXAMINATION-MAY 2023

Subject: Power Electronics - II
Subject Code: CP23604T

Total Time: 2 Hr.
Total Marks: 50

PART B

1.0 ANSWER ANY EIGHT OF THE FOLLOWING

2*8=16

- 1.1 Draw the symbol of DIAC & TRIAC
- 1.2 Define three phase inverter.
- 1.3 Define DC to AC converters.
- 1.4 Explain the role of thyristor in Phase control principle.
- 1.5 Write a short note on Push-Pull inverter.
- 1.6 Define trigger angle/delay angle in principle of phase control
- 1.7 Define AC voltage controller with the help of a block diagram.
- 1.8 What are the two major types of cycloconverter?
- 1.9 Define Electromagnetic Interference.
- 1.10 What are the factors affecting the output power of any Inverter?

2.0 ANSWER ANY SIX OF THE FOLLOWING

3*6=18

- 2.1 Draw the equivalent representation of silicon controlled switch.
- 2.2 Describe the construction of DIAC with layered diagram.
- 2.3 List out the comparison between single phase half bridge and full bridge inverter.
- 2.4 What is the role of diode in half bridge inverter?
- 2.5 Define cycloconverter with the help of block diagram
- 2.6 Explain the shielding technique in prevention of EMI.
- 2.7 List out the advantages & limitations of TRIAC
- 2.8 Differentiate between UJT & BJT

3.0 ANSWER ANY FOUR OF THE FOLLOWING

4*4=16

- 3.1 Draw and explain the VI characteristics of UJT
- 3.2 Describe single phase half bridge inverter with the help of circuit diagram
- 3.3 Describe the construction of single phase bidirectional controller with R load.
- 3.4 Draw and explain the circuit diagram of an inverter circuit
- 3.5 Draw the generalized block diagram of generation of EMI signals.
- 3.6 Explain the resistance method for speed control of an universal motor with circuit diagram.

