



Dnyaneshwar Vidyapeeth (Trust)

CENTRAL EXAMINATION BOARD

ASSIGNMENT OF ADVANCED POWER ELECTRONICS

SUB -CODE- (ELX-G700)
ASSIGNMENT NO. 1

COURSE: ADVANCED TECH-QUIC PROGRAM
(Assignment Based on Topic No. 1,2,3)

SESSION - WINTER
BRANCH - Elect /E &TC

Q.1 Answer the following (Questions for 2 Marks):

- 1) Define pulse width modulation
- 2) What is SAC?
- 3) What is EAC?

Q.2 Answer the following (Questions for 4 Marks):

- 1) Explain the need of improving power factor in converter driver
- 2) State the different techniques of power factor improvement
- 3) How does EAC improve the power factor?
- 4) What are the advantages of sequence control of series connection?

Q.3 Answer the following (Questions for 8 Marks):

- 1) Explain the semi converter operation of full converter
- 2) Draw the basic schematic diagram of dual converter and explain its use in the reversible dc motor drive.
- 3) Explain the operation of an dual converter
- 4) What do you mean by Dual Mode Converter? What are the advantages of operating in Dual Mode?
- 5) What is the circulating current mode? Compare its performance with that of non circulating current mode

Q.4 Answer the following (Questions for 10 Marks):

- 1) Explain the operation of series connected semi converter with Phase angle control symmetrical angle control
- 2) Explain the process of regenerative braking of dc motors and how is it implemented in converter controlled drives.
- 3) What is non-circulating current mode of dual converter? Explain its advantages and disadvantages