

Extra

V.P & R.P.T.P. SCIENCE, V.V.NAGAR

Internal Exam

B.Sc. (VIth SEM.) ELECTRONICS

DATE: 13/03/2019

SUB: US06CELE05

TIME: 10:00 am to 12:00 pm

MARKS-50

- Q-1 Choose correct answer [08]
- Type A chopper consists of _____ chopping network.
(A) one (C) four
(B) three (D) None of above
 - Single phase bridge control circuit consists of _____ SCRs.
(A) 4 (C) 3
(B) 2 (D) None of above
 - Freewheeling diode used in _____.
(A) Type A chopper (C) Type B chopper
(B) Cycloconverter (D) None of above
 - For the speed reversal of DC motor _____ is used.
(A) amplifier (C) Type B chopper
(B) dual converter (D) None of above
 - Power controlling done by _____.
(A) phase control (C) amplification
(B) rectification (D) None of above
 - A large value of inductor in bridge circuit results in _____.
(A) discrete current (C) continues current
(B) zero current (D) None of above
 - Dual converter consists of _____.
(A) inverter and oscillator (C) inverter and rectifier
(B) rectifier and amplifier (D) None of above
 - B2 and B6 is _____ type of configuration.
(A) Bridge (C) Half wave
(B) Full wave (D) None of above



- Q-2 Short answer type question. (any five) [10]
- Why power controlling is needed?
 - Differentiate Type A and Type B chopper.
 - What is chopper?
 - State advantage and disadvantage of full wave bridge control circuit.
 - What is snubber circuit? Briefly explain.
 - State function of dual converter.
 - List different section of PLC section.
 - Briefly explain phase control.

Q.3 Explain different version of full wave phase control circuit in detail. [08]

OR

Q.3 Explain functional mechanism and principle of dual converter with necessary diagram. [08]

Q.4 Explain the principle of chopper operation with necessary circuit diagram. [08]

OR

Q.4 Draw the circuit diagram of step up chopper and explain its working with necessary waveform. [08]

Q.5 Describe functional mechanism of first quadrant type A chopper with diagram and waveform. [08]

OR

Q.5 Explain functional mechanism of type B chopper with diagram and waveform. [08]

Q.6 Discuss different terms and terminologies used in operation of PLC. [08]

OR

Q.6 What is PLC? Draw block diagram of PLC system and discuss function of all section of it. [08]

