



- c) Flexible alternating circuit transmission system  
 d) Full wave alternating circuit transmission system
- Q.5 For which of the following is the frequency is constant from input to output  
 a) Ac voltage controller  
 b) Chopper circuit  
 c) Inverter  
 d) Cycloconverter
- Q.6 Which among the following happens in a low power factor?  
 a) Large KVA rating of the equipment  
 b) Greater conductor size  
 c) Reduced handling capacity of the systems  
 d) All of the above
- Q.7 The integral cycle control method is used in heating loads and motor control drives because of \_\_\_\_\_  
 a) Zero voltage crossing  
 b) The supply voltage control  
 c) Less harmonics  
 d) The average load power control
- Q.8 The chopper circuit is a device that converts \_\_\_\_\_  
 a) AC to AC signal  
 b) DC to DC signal  
 c) AC to DC signal  
 d) DC to AC signal
- Q.9 The single phase bridge type cycloconverter uses \_\_\_\_\_ number of SCRs.  
 a) 2                                      b) 4  
 c) 6                                      d) 8

- Q.10 A dual converter provides \_\_\_\_\_  
 a) Two quadrant operation  
 b) Three quadrant operation  
 c) Four quadrant operation  
 d) None of the above

### SECTION-B

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Draw the circuit diagram of single phase voltage controller with RL load.
- Q.12 Define ON line UPS.
- Q.13 Define cycloconverter.
- Q.14 Define static switches.
- Q.15 In three phase cycloconverter, how many pulses are generated?
- Q.16 Expand SMPS.
- Q.17 Define half wave control drive
- Q.18 What do you mean by duty cycle?
- Q.19 Define the term chopper drive.
- Q.20 What is solid state relay.

### SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Explain the working of speed control of 3 phase induction motor using stator voltage control.
- Q.22 Why OFF LINE UPS is called as short break UPS?
- Q.23 Discuss the principal of integral cycle control as used in AC voltage controllers.