

Question Bank (G scheme)

Name of subject: Industrial Electronics & Applications

Subject code: 17541

Unit Test: II

Semester: IE5G

Course: INDUSTRIAL ELECTRONICS

CHAPTER 4: AC VOLTAGE STABILIZER (16 marks)

3 marks

- 1) State the Need of Stabilizers? List types.
- 2) List any three advantages and applications of AC Voltage stabilizers.
- 3) State specifications of isolation transformer and also write its core characteristics.

4 marks

- 4) Distinguish between Relay type and Servo type stabilizers with respect to operating principle, efficiency, distortion and applications.
- 5) How AC voltage is stabilized by servo type stabilizer? Describe with block diagram.
- 6) Draw the circuit diagram of phase control method used in AC voltage stabilizer. List any two applications.
- 7) Draw and describe working of tap-changing type AC voltage stabilizer.
- 8) Draw the circuit diagram and explain the working of isolated SMPS.
- 9) Draw diagram of non-isolated SMPS. List any two advantages and disadvantages.

CHAPTER 5: UNINTERRUPTABLE POWER SUPPLY (12 marks)

3 marks

- 10) Draw the Basic block diagram of UPS. State the function of any one.
- 11) Draw and describe working of On-line – UPS.
- 12) Define On-Line and Off-Line UPS.

4 marks

- 13) Which type of UPS is used for Personal computer? Draw the related block diagram and explain the operation of each block.
- 14) Draw block diagram of Line Interactive UPS. Describe the function of each block.
- 15) Define Battery parameters-back up time, power rating with its typical value.
- 16) List any eight Specifications of UPS with typical values.

CHAPTER 6: RESISTANCE WELDING (16 marks)

3 marks

- 17) State the working principle of Resistance Welding with diagram.
- 18) State the advantages & disadvantages of resistance welding.
- 19) State applications of resistance welding.

4 marks

- 20) Draw Block diagram of sequential timer for resistance welding. Describe the function of each block. List different signals generated.
- 21) Draw the circuit diagram of synchronous weld control and describe the working of the circuit.
- 22) State the principle of resistance welding. Draw the block diagram of Capacitor energy storage welding with waveforms and state two advantages and disadvantages.
- 23) Draw neat labeled diagram of line contactor using SCR and describe the working.
- 24) List the Types of Resistance Welding and explain the Seam welding with diagram.
- 25) List applications of
 - a) Spot Welding
 - b) Butt Welding
 - c) Projection Welding
 - d) Seam Welding