4040310- Basics of Electrical and Electronics Engineering
Important Question

UNIT - 1
PART - B

1. Explain with block diagram the working of ON-Line UPS & OFF Line UPS.
2. Explain the maintenance of UPS including batteries.
3. Explain the construction details of Lead acid battery.
4. Briefly explain the Care and maintenance of Lead acid battery.

UNIT- 2
PART-B

1. Explain the operation of
   i) DC Servo motor
   ii) AC Servo motor
2. Explain the construction and working of Stepper motor.
3. What are factors to be considered for selecting a motor for a particular application?
4. Explain the working principle of transformer.
5. Explain the construction of transformer.

UNIT- 3
PART-B

1. Explain the operation of
   i) Half wave rectifier ii) Full wave rectifier iii) Bridge rectifier.
2. Explain the working principle of NPN & PNP transistor.
3. With the diagram explain the input and output characteristics of
   i) Common emitter ii) Common base iii) Common collector
4. Explain the principle of operation of LDR & LED.

UNIT- 4
PART-B

1. With the logic diagram explain
   i) Half adder ii) Full adder iii) Half subtractor iv) Full subtractor.
2. i) With the logic diagram explain Multiplexer (1 of 4 Multiplexer)
   ii) With the logic diagram explain Demultiplexer.
3. With the logic diagram explain Encoder & Decoder.
4. Explain the logic gates truth table & symbol (AND, OR, NOT, EXOR, EXNOR)

UNIT- 5
PART-B

1. Draw the logic diagram of
   i) SR Flip ii) D Flip flop iii) T flip flop iv) JK Flip flop.
2. Draw the logic diagram explain of 4 bit – Synchronous counter and explain its operation.
3. Draw the logic diagram of Mod N counter.

ALL THE BEST FOR YOUR BOARD EXAMINATION