Register No.:

346

October 2017

Time – Three hours
(Maximum Marks: 75)

[N.B: (1) Q.No. 8 in PART – A and Q.No. 16 in PART – B are compulsory. Answer any FOUR questions from the remaining in each PART - A and PART - B.

(2) Answer division (a) or division (b) of each question in PART-C.

(3) Each question carries 2 marks in PART – A, 3 marks in Part – B and 10 marks in PART – C.]

PART – A

1. What is work? Define MMF.
2. What is RMS value?
3. What is frequency and power factor?
4. What is multi motor drive?
5. What is rectifier?
6. State the applications of SMPS.
7. Expand MCB and ELCB.
8. What are universal gates? Why is it called so?

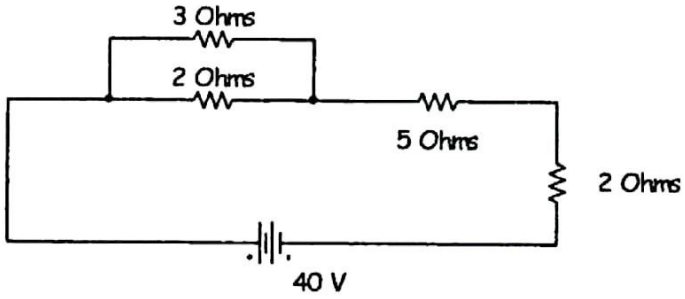
PART – B

9. State Kirchhoff's law.
10. Mention the applications of DC motor.
11. Write precautions to avoid electric shock.
12. What is meant by industrial drives? List the types.
13. What is positive logic and negative logic?
14. State the different type of sensors.
15. What is meant by relay?
16. State the method of speed control of three phase induction motor.

[Turn over...

PART – C

17. (a) Find the effective resistance for the following circuit and power developed in each resistor.



(Or)

(b) Draw and explain the operation of three point starter.

18. (a) Explain the construction of transformer.

(Or)

(b) Explain the construction and operation of star-delta starter.

19. (a) Explain the construction and application of PMDC motor.

(Or)

(b) Explain the working of single stepper motor drive.

20. (a) Explain the working of fullwave rectifier with input and output waveforms.

(Or)

(b) Draw the symbol and truth table of AND, OR, NAND, NOR and Ex-OR gates.

21. (a) Draw a neat diagram of solenoid type contactor and explain its working.

(Or)

(b) Draw the block diagram of PLC and explain each block.
