1033

Code : **15MC42T**

Register Number

INDUSTRIAL ELECTRONICS

Time : 3 Hours]

[Max. Marks : 100

PART – A

Answer any **six** questions.

1. Differentiate between SCR and TRIAC.   5

2. Explain the working of TRIAC.   5

3. Explain single line diagram.   5

4. Explain ladder diagram.   5

5. Explain flow switch with a neat diagram.   5

6. Explain any two manually operated switches.   5

7. Explain the working of temperature & pressure switch.   5

8. Explain the operation of brushless DC motor.   5

9. Explain DC servomotor with its characteristics.   5

PART – B

Answer any **seven** full questions.

10. Explain the working of single phase controlled full wave rectifier with circuit diagram and waveforms.

    10

11. Explain the working of series and bridge invertor.

    10

12. Explain the working of SMPS with diagram.

    10

13. Explain the working of

    (i)   Solid state contactor

    (ii) Magnetic motor starter

    5 + 5 = 10

14. Explain the operation of

    (i)   Electromechanical relay

    (ii) Solid state electronic timer

    5 + 5 = 10

15. Explain the operation of solenoid with diagram.

    10

16. Explain the speed control of DC motor with diagram.

    10

17. Explain DC drive system with neat diagram.

    10

18. Develop control circuit and load circuit for

    (i)   ON/OFF switch using two wire method.

    (ii) To rotate motor both in clockwise and anticlockwise direction

    5 + 5 = 10

19. Develop control circuit for

    (i)   Three wire circuit with indicator lamp.

    (ii) Jogging circuit.

    5 + 5 = 10

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