

November 2022

Time - Three hours
(Maximum Marks: 100)

- (N.B. 1. Answer all questions under Part-A each question carries 3 marks.
2. Answer all the questions either (A) or (B) in Part-B each question carries 14 marks.]

PART - A

1. List out any four switches used in the control circuits.
2. What is selector switch? Draw the symbol of selector switch.
3. What is field failure protection?
4. Write a note on open circuit transition in autotransformer starter.
5. What is planner machine?
6. List the industrial applications of Electric Oven.
7. Define PLC.
8. Write short notes on memory organisation.
9. What is meant by ladder diagram?
10. Draw the ladder diagram for DOL starter.

[Turn over.....

PART - B

11. (a) Explain the construction and working of inductive and capacitive proximity sensor with neat diagram.
(Or)
(b) Draw and explain Simple ON-OFF motor control circuit and Electrical Interlock.
12. (a) With neat sketch, explain the operation of counter emf starter.
(Or)
(b) With neat sketch, explain the principle of secondary frequency, acceleration starter.
13. (a) Discuss about different trouble spots in control circuit.
(Or)
(b) Draw the control circuit and power circuit of battery operated truck.
14. (a) With neat sketch explain about the PLC scan.
(Or)
(b) With neat schematic diagram explain the operation of PLC discrete output module.
15. (a) Explain the various relay type instructions used in PLC.
(Or)
(b) With suitable example explain the sequence of operation CTD instruction.
