

Roll No.

23452

**M. Tech. 3rd Sem. (Electrical
Engineering) (Specialization :
Electrical Power System)
Examination- December, 2016**

**PLC CONTROLLERS AND THEIR
APPLICATIONS**

Paper : MTEPS-301 (iii)

Time : 3 hours

Max. Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note: Attempt any **five** questions. All questions carry equal marks.

1. What do you mean by PLC system ? Explain the I/O modules and their interfacing. (20)

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(1)

[Turn Over

2. Discuss the PLC programming along with Input and Output instructions used in PLC programming. (20)

(c) FIFO, and (5)

(d) Sweep Functions (5)

3. Explain the ladder diagram construction and flow chart for spray process system. (20)

7. Explain the controlling of two axis robots with PLC. Also explain Matrix functions. (20)

4. Discuss the characteristics of PLC registers. (20)

8. What do you mean by PID principle. Explain position indicator with PID control. (20)

5. Explain timer function, industrial applications and counter function industrial applications. (20)

6. Explain :

(a) SKIP (5)

(b) Master Control Relay (5)

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23452-100-(P-3)(Q-8)(16) (3)