P536

TE/Insem/APR-128

T.E. (Electronics Engineering)

PLC AND APPLICATION

(2015 Pattern) (Semester - II)

Time : 1 Hour]   *[Max. Marks : 30*

Instructions to the candidates :

1) *Answer Q.1 or Q.2, Q.3 or Q.4 and Q.5 or Q.6.*
2) *Figures to the right indicate full marks.*
3) *Assume suitable data, if necessary.*

Q1) a) Write short note on :   **[6]**

     i) Programming word level logic instruction

     ii) Principle of Operation of PLC

    b) Differentiate PLC Vs Computer.   **[4]**

OR

Q2) a) What is PLC? Draw and Explain block diagram of PLC?   **[6]**

    b) Draw the Gate Logic, Relay ladder Logic and PLC ladder diagram for given equation.

     Y=AB+CD   **[4]**

Q3) a) List different types of switches which are interface with PLC input module. Explain any one switch.   **[6]**

    b) Write short note on branch instruction.   **[4]**

OR

Q4) a) List different types of output Devices which are interface with PLC Output module. Explain any one in detail.   **[6]**

    b) Write Short Note on PLC Programming Languages.   **[4]**

Q5) a) Blinking Indicator Lights are used quite extensively in industry. Design a circuit in which two lights are flashed alternately every after 5 seconds. Draw PLC ladder Diagram. **[6]**

b) List various types of comparison Function used in PLC. Explain any one in detail. **[4]**

OR

Q6) a) List various types of Timers used in PLC. Explain any one in detail. **[6]**

b) The Start Switch Starts Motor 1 and 10 seconds later motor 2 starts. The Stop switch stops motor 1 and 15 seconds later motor 2 stops. Draw PLC ladder diagram for the above statement. **[4]**

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