B.Tech. SEM -VI Electrical 2014 Course (CBCS) : SUMMER - 2019

SUBJECT: ELECTIVE-II PROGRAMMABLE LOGIC CONTROLLERS

Day: Friday | Time: 02.30 PM TO 05.30 PM

Date: 31/05/2019 | **S-2019-2738** | Max Marks: 60

N.B.:

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Assume suitable data if necessary

Q.1	**a)**	Draw and explain block diagram of power supply for PLC.	**(05)**
	b)	What are different sensors used in industrial automation?	**(05)**
		OR	
	a)	Draw and explain block diagram of CPV.	**(05)**
	b)	What is role of actuators in case of PLC system?	**(05)**
Q.2	**a)**	What do you mean by ON- delay timer?	**(05)**
	b)	What are different steps involved in creating ladder diagram?	**(05)**
		OR	
	a)	Create a ladder diagram to verify truth table of Ex-OR gate.	**(05)**
	b)	Write a note on different programming equipments.	**(05)**
Q.3	**a)**	Draw and explain PLD controller for PLC system.	**(05)**
	b)	Draw and explain about AC motor overload protection.	**(05)**
		OR	
	a)	Write a note on analog PLC operation.	**(05)**
	b)	Explain use of PLC in case of level control application.	**(05)**
Q.4	**a)**	Draw and explain Networked architecture in connection with SCADA for remote application.	**(05)**
	b)	What do you mean by master terminal unit?	**(05)**
		OR	
	a)	What are different SCADA functions?	**(05)**
	b)	What a note on SCADA server.	**(05)**
Q.5	**a)**	Write a note on Automatic substation control?	**(05)**
	b)	How do you explain SCADA system in water purification system?	**(05)**
		OR	
	a)	Write a note in Intelligent electronic devices.	**(05)**
	b)	What do you mean by SCADA configuration?	**(05)**
Q.6	**a)**	What do you understand by Transmission control protocol (TCP).	**(05)**
	b)	What are the functions of TCP/IP layers?	**(05)**
		OR	
	a)	Explain IEC layered architecture.	**(05)**
	b)	Write a note on MODbus.	**(05)**

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