

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech.(EIE) (2011 Onwards E-III) (Sem.-7,8)

DISTRIBUTED CONTROL SYSTEMS

Subject Code : DE-3.3

M.Code : 58043

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Answer briefly :

- a. List some applications of DCS.
- b. Compare SCADA and DCS.
- c. What is the application of computer in control system?
- d. Differentiate direct digital control and analog control.
- e. Name two industry fieldbus suppliers.
- f. What is the significance of computers in modern control system?
- g. Write the features present in operator level interface.
- h. Why is digital control necessary in industries?
- i. Name few popular communication busses used in DCS.
- j. Explain distributed process control.

SECTION-B

2. Write short notes on SCADA.
3. Discuss the merits of direct digital control.
4. Draw the DCS flow sheet symbols.
5. Mention the advantages and disadvantages of low level and high level operator interfaces.
6. Discuss system integration with PLCs and computers.

SECTION-C

7. Discuss centralized, de-centralized and dedicated computer process control systems.
8. Explain the direct digital control structure with neat diagrams.
9. Illustrate the basic math function used in PLC with examples.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.