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Question Paper Code: 31953

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2016

Elective

Electronics and Instrumentation Engineering

01UEI914 - INDUSTRIAL DATA NETWORKS

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. Define topology. What are the different types of topology?
2. What do you mean by HDLC?
3. Write the different cabling used in Ethernet communication.
4. What is flooding?
5. Define HART.
6. What are the advantages of Fieldbus?
7. Explain token passing mechanism in Profibus.
8. Define Modbus.
9. Mention the features of radio modem.
10. What is Fresnel zone?

PART - B (5 x 16 = 80 Marks)

11. (a) Describe the functions performed by various layers of ISO-OSI reference model. (16)

Or

(b) Explain various frames of HDLC protocol with neat diagram. (16)

12. (a) (i) Write a note on ARC net and explain its configuration. (8)

(ii) Describe the four types of internetworking devices. (8)

Or

(b) What is a router? Explain the various routing techniques. (16)

13. (a) (i) Compare the features of field bus and HART. (4)

(ii) Explain the various field bus topologies. (12)

Or

(b) Explain in detail about HART bus communication protocol. Mention its applications. (16)

14. (a) Explain in detail about Modbus protocol and mention its features. (16)

Or

(b) Explain in detail about the Profibus protocol and mention its features. (16)

15. (a) Explain in detail about 10Mbps Ethernet. (16)

Or

(b) Draw and explain the block diagram of radio modems and also explain the modes and features of radio modems. (16)
