

T.E (Instru) Sem-VI CBGS

13/12/18

1/1

[Time: Three Hours]

[Marks:80]

N.B:

1. Question.No.1 is compulsory.
2. Attempt any three questions from remaining five questions.
3. Assume suitable data wherever necessary

- 1 a Explain importance of session layer in OSI model. 4×5=20  
b Describe Bust Mode of HART protocol.  
c Compare H1 and HSE segment of foundation Field bus.  
d What are different types of network topologies  
e Which standard is used for  
i. Wireless LAN ii GPRS iii Bluetooth iv ZigBee
- 2 a Draw and explain the TCP/IP model in detail. 10  
b Explain the following network components and state in which layer of OSI model each of them work 10  
I. Bridge  
II. Hub  
III. Router  
IV. Gateway  
V. Switch
- 3 a What is MODBUS and MODBUS Plus. 10  
b Describe PROFIBUS-DP in detail 10
- 4 a Discuss the OPC architecture with suitable diagrams. 10  
b Explain different types of cables used in communication network along with its advantages and disadvantages. 10
- 5 a Illustrate and explain the layered architecture of HART. 10  
b What is satellite communication? Define uplink and downlink frequency? 10
- 6 Write short notes on:- 20  
I. GPIB  
II. Data Highway Plus  
III. CAN protocol  
IV. Advantages and Disadvantages of Field Bus