(3 Hours) Total Marks: 80

Note:

1. Question No.1 is compulsory

2. Solve any THREE questions out of remaining FIVE questions. 3. Figure to the right indicate full marks. 1 Attempt following. [20] A. Explain hubs and routers. B. Compare RS 232 and RS 422 C. Explain bust mode of HART protocol. D. Compare H1 and H2 segment of foundation field bus. E. Explain importance of data link layer in OSI model. 2. (a) Explain communication mode of HART protocol. [10] (b)Write detail information about Modbus. [10] 3. (a) Explain Profibus-DP in detail. [10] (b)Explain CAN bus along with its application. [10] 4. (a) Compare WIFI, GPS and GPRS. [10] (b) Explain TCP/IP protocol in detail [10] 5. (a) Explain foundation field bus along with its advantages and disadvantages. [10] (b)Explain manchester coding? [10] 6. Write a short note on: 1. Zigbee [06] **2**. LON [07] 3. Data highway plus [07] ******