(3 Hours) [Total Marks : 80]

Note: Question 1 is compulsory
Solve any three out of remaining five questions
Figures on right indicate full marks allotted to main question

Q1 Answer the following 20Mks

a. What are different types of network topologies?
b. Explain Burst mode of communication of HART.
c. Which layer is responsible for following-
   I. Physical encoding and decoding
   II. Providing end to end delivery of packets
   III. Providing end to end delivery of segments
   IV. Error detection and correction
   V. Routing
d. What is FFB Foundation fieldbus? List the features

Q2 Answer the following 20Mks
a) Explain The OSI model
b) Draw the TCP/IP model and Explain LAN Architecture including IEEE standards

Q3 Answer the following 20Mks
a) Compare H1 and HSE segment of Foundation Field bus
b) What is CAN Bus? Explain?

Q4 Answer the following 20Mks
a) Explain Three components (Blocks) of Foundation fieldBus
b) What is MODBUS and MODBUS PLUS

Q5 Answer the following 20Mks
a) What is Profibus? Explain Profibus PA, Profibus DP and Profibus FMS
b) Explain HART protocol and give its importance in predictive maintenance

Q6 Write short notes on (Any four) 20Mks

I. RS232
II. GPRS
III. Wireless LAN
IV. VSAT
V. OPC