

(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. Answer any five :

- a) Explain the importance of Hubs, routers, switches and bridges.
- b) What are the components of a field bus?
- c) Compare H1 and HSE segments of foundation field bus.
- d) Explain the difference between physical address, network address and domain name.
- e) Explain ethernet.
- f) Mention the ISO-OSI layers along with their functions.

2. Answer the following :

- a) What is meant by sensor level network? Explain two such networks in detail. (10)
- b) Compare WiFi, GSM, GPRS wireless communication technologies. (10)

3. Answer the following :

- a) Explain the OPC-OLE and list its importance. (10)
- b) Explain PROFIBUS in detail. (10)

4. Answer the following :

- a) Explain the methods employed for protection of field bus in hazardous area. (10)
- b) Explain MODBUS in detail. (10)

5. Answer the following :

- a) Explain the architecture of HART and its importance in industrial communication. (10)
- b) Explain the circuit switching, packet switching and message switching. (10)

6. Write short notes on any (2) :

- a) CAN Bus
- b) Transmission impairments in communication
- c) IEEE standards and Token bus.