

GUJARAT UNIVERSITY

BE Semester-VI (Instrumentation & control) Question Bank

(Data Acquisition System) IC 604

All questions carry equal marks(10 marks)

Q.1	Discuss physical layer of HART protocol.
Q.2	Explain the data acquisition system with block diagram.
Q.3	Explain in detail Field bus and also mention its merits and demerits
Q.4	Explain Voltage to current converter with grounded load using op-amp.
Q.5	Explain application layer and user layer of Foundation Field bus.
Q.6	Explain TCP/IP model in detail.
Q.7	Explain in detail optical fiber cable with diagram.
Q.8	Explain in detail role of network in process Automation
Q.9	Explain seven layers of OSI reference model in detail.
Q.10	Explain in detail about wireless LAN networks.
Q.11	Explain in detail about Ethernet.
Q.12	Explain Modbus protocol structure in detail.
Q.13	Explain any one network communication system using Proprietary protocol in detail.
Q.14	Explain switching technology used in Ethernet network
Q.15	Explain in detail the various types of topologies used in networking.
Q.16	Explain in detail the various types of cables used in networking.
Q.17	Explain satellite technology and pneumatic to current converter in detail.
Q.18	Explain electronic transmitters and pneumatic transmitters in detail.
Q.19	Explain pneumatic to current converter and current to pneumatic converter in detail.
Q.20	Explain current to current converter in detail.
Q.21	What is pneumatic transmitter? State its applications.
Q.22	Explain voltage to pneumatic converter in detail.
Q.23	Explain Block Diagram representation of DAS & SCADA systems.
Q.24	Explain the block diagram of DAS and SCADA.
Q.25	How fieldbus can be designed? Explain its installation in the industry.
Q.26	Explain Modbus protocol in detail with their suitable applications.
Q.27	Explain current to pneumatic converter in detail.
Q.28	What is Smart Transmitters? Explain it with its examples.
Q.29	Explain XTR-101 Two wire transmitter chip.
Q.30	Give the different Hardware Selection for field bus systems.
Q.31	Explain Foundation Field bus Network with suitable diagrams.
Q.32	Explain in detail about wireless LAN networks and Ethernet.
Q.33	Describe PROFIBUS – PA.
Q.34	Explain Ethernet and TCP/IP - Based Systems.
Q.35	Explain pneumatic to current converter in detail.
Q.36	Give the difference between foundation field-bus and profibus.
Q.37	Explain Radio and Wireless LAN Networks.

Q.38	Explain Field bus advantages and disadvantages.
Q.39	Describe HART Network.
Q.40	Explain voltage to current converter in detail.