

T.E. SEM /V /INST /CBSGS/ NOV 2017

Q.P. Code :20956

[Time: Three Hours]

[Marks:80]

Please check whether you have got the right question paper.

- N.B:
1. Question.No.1 is compulsory.
 2. Attempt any three questions from Q.No.2 to Q.No.6.
 3. Draw suitable diagram wherever required.

- Q.1 Attempt any five. 20
- a. Explain air supply system with diagram.
 - b. Compare: Hydraulic, Pneumatic and electric system.
 - c. Explain pneumatic to electric converter.
 - d. Draw inherent characteristics of control valve.
 - e. Explain concept of RFID. Give suitable example.
 - f. Write a short note on: Alarm annunciator.
- Q.2 10
- a. Explain linear and rotary actuators used in pneumatic system with neat diagram.
 - b. Explain any speed control circuit used for hydraulic actuator. 10
- Q.3 10
- a. Draw and explain buoyancy transmitter with industrial applications.
 - b. How SMART transmitter works? Give applications of SMART transmitter. 10
- Q.4 10
- a. Give selection criterion of control valve.
 - b. What is need of valve positioner? Explain any type of valve positioner with diagram. 10
- Q.5 10
- a. List out various auxiliary process control components. Explain square root extractor in detail.
 - b. Give need of contactors. Explain working of contactors. 10
- Q.6 Write a short note on: (attempt any four) 20
- a. Control valve actuators
 - b. Volume boosters
 - c. Electro-mechanical relay
 - d. Four wire transmitter
 - e. Limit switches
