



Q.P. Code :20957

[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. Compare SMART vs. conventional transmitter.
 - b. Explain operation of three way solenoid valve.
 - c. Explain in brief Alarm Annunciator system.
 - d. Give Comparison between Pneumatic, Hydraulic and Electrical system.
 - e. What is ATC & ATO? Explain in brief.
 - f. With suitable diagram explain Rupture Disk.
- Q.2 10
- a. What is Control Valve? Explain sliding stem Globe control valve. 10
 - b. Explain with suitable sketch working of I to P converter. 10
- Q.3 10
- a. Explain classification of Process Transmitters. Discuss Operation of DP Transmitter with suitable application. 10
 - b. With suitable sketch explain Air Compressor system. 10
- Q.4 10
- a. What is Valve Positioner? Explain with suitable sketch working of Force balance Valve Positioner 10
 - b. Explain construction, working and application of single and double acting cylinders. 10
- Q.5 10
- a. Explain in brief any two Auxiliary Process control components and their applications. 10
 - b. With suitable diagrams explain working of 2/2 directional control valve. 10
- Q.6 Write a short note on: 20
- a. Hydraulic pump
 - b. Instrument and Plant Air
 - c. Contactor Vs Relay
 - d. Types of Actuators
