

TE-II / Control System Components / INST (Rev)

13/05/17



QP Code : 3329

(3 Hours)

[Total Marks : 80

- N.B. (1) Question No. 1 is compulsory.
(2) Solve any three questions out of remaining questions.
(3) Assume suitable data if required.
(4) Draw sketch wherever required.

1. Solve any five :- 20
- (a) Explain RFID concept in control system components.
 - (b) Draw and explain control valve characteristics.
 - (c) What is Flapper Nozzle system ?
 - (d) Distinguish between 2-wire and 4-wire transmitter.
 - (e) Draw and explain I to P convertor.
 - (f) Compare safety valves, relief valves and rupture disc.
2. (a) Compare between pneumatic, hydraulic and electric system. 10
(b) Explain types of linear actuators and explain any one in detail. 10
3. (a) Explain smart transmitter in detail with one application. 10
(b) What is valve positioner ? Mention its necessities. 10
4. (a) Draw and explain temperature switch. 10
(b) Give control relay classification and explain any one. 10
5. (a) Classify various transmitters ? Explain tank level measurement using DP transmitter. 10
(b) Explain selection criteria for control valve and valve actuators. 10
6. Give short notes on :-
- (a) Directional control valve 7
 - (b) Volume Boosters 7
 - (c) Square root extractor. 6
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JP-Con. 8647-15.