

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Define solenoid. Explain the principle of operation and working of solenoid valve.
- Q.24 Explain PID control mode with their merits and demerits.
- Q.25 Define control valve. Explain working principle and construction of Hydraulic valve.

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Roll No.

4th Sem./ Instrumentation & Control

Subject : Process Control

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 Temperature switches are also called as
- a) Relay switch b) RTD
 - c) Thermostat d) Limit Switch
- Q.2 Flow switches normally open or closed when a predetermined flow is
- a) Closed b) Open
 - c) Reached d) None of these
- Q.3 The On-Off Controller is a
- a) Continuous controller
 - b) Discontinuous controller
 - c) Hybrid controller
 - d) Both a & b

- Q.4 Flapper Nozzle is used in a _____
- a) Electronic system b) Hydraulic system
c) Pneumatic system d) None of these
- Q.5 In automatic control system
- a) Feedback is absent
b) Feedback is present
c) Feedback sometimes occur
d) None of these
- Q.6 Solenoid valve is an example of
- a) On-off control b) Derivative control
c) Integral control d) none of these

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 Expand PI.
- Q.8 Define control valve.
- Q.9 Define Process.
- Q.10 Define limit switch.

- Q.11 Expand P/I converter.
- Q.12 Write two applications of electric actuator.

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 Draw symbol and explain working principle of temperature switch.
- Q.14 Write a short note on globe valve.
- Q.15 Explain working of pneumatic actuator with the help of diagram.
- Q.16 How pressure switch is used in industry.
- Q.17 Explain concept of I to P converter.
- Q.18 Write a short note on cascade control system.
- Q.19 Draw and explain characteristics of P + I controller.
- Q.20 Write atleast five comparison between feedback and feed forward control system.
- Q.21 Describe process lag and measurement lag.
- Q.22 Explain P + D control mode with diagram.