

# Question Bank

Name of subject: **Process Control System**

Subject code: 17663

Semester: VI (SIXTH)

Branch: - IS6G

UNIT –TEST I

## Chapter 1: Process Control System(12 Marks)

### 3 Marks Question:

- 1) Define Controlled Variable and Manipulated Variable (Controlling Variable).
- 2) Explain the Human-Aided Control w.r.t to Process.
- 3) Draw P & ID for all types of Lines.
- 4) Define the different Benefits of Process Control System.

### 4 Marks Question:

- 5) Define the term Process control System. Name all the basic Elements & signal involved. Name of 4 process Industry.
- 6) Draw & Explain the Automatic Level Control System.
- 7) Draw & Explain the Physical diagram of a Process level control system.

## Chapter 2:Control Valves(24Marks)

### 3 Marks Question:

- 8) Draw & explain control valve characteristics..
- 9) Describe the criteria on which basis control valve is selected.
- 10) Find (1) the proper Cv for a valve that must allow 250 gal of ethyl alcohol Perminute with a specific gravity of 0.8 at minimum pressure of 100 psi (2) the required valve size
- 11) State the difference between single seated and double seated valve.
- 12) Explain the remedies to eliminate Cavitation and flashing.
- 13) What is the necessity of valve positioner?

### 4 Marks Question:

- 14) Explain the term Cavitation & Flashing w.r.t. control valve.
- 15) Explain any one type of valve positioner with neat diagram.
- 16) Draw and Explain the Construction and working of Butterfly valve.
- 17) Draw and Explain the Construction and working of Ball valve.
- 18) What is Valve Positioner? Name different types of valve positioner. State advantages of it?
- 19) Draw and Explain the Pneumatic control Valve.

**Chapter 3: Advance Control Valves (08 Marks)**

**3 Marks Question:**

- 20) State the difference between feedbacks and feed forward Control system
- 21) Explain with neat diagram ratio control.

**4Marks Question:**

- 22) Draw & explain block diagram for cascade control system.
- 23) Draw & explain block diagram for Split range control.
- 24) Explain with neat diagram Selective control.
- 25) Draw & explain block diagram for Adaptive control.