

- Q.25 What is the procedure for installation of instrumentation system.
- Q.26 Draw the block diagram of power plant.
- Q.27 What are the line symbol.
- Q.28 List various application of PCB.
- Q.29 Draw schematic diagram for spring return & tandem valve.
- Q.30 Write a short note on flow chart.
- Q.31 Discuss the check list of Instrumentation.
- Q.32 Draw graphical symbol for pipe fitting.
- Q.33 Write down about PCB in brief.
- Q.34 Write a short note on power plant.
- Q.35 Draw various wiring diagram.

#### **SECTION-D**

**Note :** Long Answer type question. Attempt any two questions.  $(2 \times 10 = 20)$

- Q.36 Discuss in detail balloon symbol & Electronics symbol with different example.
- Q.37 Draw schematic diagram of various hydraulic and pneumatic components.
- Q.38 Draw and explain the sketch of PI controller.

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#### **Instrumentation & Control**

#### **Subject : Instrumentation Drawing**

**Time : 3 Hrs.**

**M.M. : 100**

#### **SECTION-A**

**Note :** Multiple choice questions. All questions are compulsory.  $(10 \times 1 = 10)$

- Q.1 Which of the following is not used to fix drawing sheet on the board?
- a) Drawing pins
  - b) Clips
  - c) Thread
  - d) None of these
- Q.2 In PCB, C stands for
- a) Control
  - b) Circuit
  - c) Closed
  - d) Central
- Q.3 PCBs should be fabricated with \_\_\_\_ layers.
- a) Odd number of
  - b) Even number of
  - c) Only one
  - d) Any number of layers
- Q.4 In pneumatic controller PC stands for
- a) Pressure controller
  - b) Power controller
  - c) Power circuit
  - d) None of these
- Q.5 In Temperature controller TT stands for

- a) Temperature Transmitter
  - b) Total transmitter
  - c) Technical transducer
  - d) None of these
- Q.6 Hydroelectric power plant is
- a) Non renewable source of energy
  - b) Conventional source of energy
  - c) Continuous source of energy
  - d) None of these
- Q.7 Hydroelectric power plant is mainly located in
- a) Flat areas                  b) Deserts
  - c) Hilly areas                  d) None of these
- Q.8 A solenoid valve is also known as \_\_\_\_\_ valve
- a) Electrically operated    b) Mechanically
  - c) Physically                  d) All of these
- Q.9 PFD expands as process \_\_\_\_\_
- a) Flow diagram              b) Flow data
  - c) Fast data                  d) None of these
- Q.10 \_\_\_\_\_ is the example of power plant
- a) Nuclear plant            b) Hydro plant
  - c) Stem turbine              d) All of these

## SECTION-B

**Note :** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Relay.
- Q.12 Ballon Symbol.
- Q.13 Single side PCB.
- Q.14 Expand FET
- Q.15 Draw Line Symbol
- Q.16 Draw symbol of motor.
- Q.17 Write the unit of Register.
- Q.18 Draw close loop system.
- Q.19 Write the full form of LED.
- Q.20 Draw PCB Layout.

## SECTION-C

**Note :** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Draw different process Instrumentation system.
- Q.22 Write a short note on single acting cylinder.
- Q.23 What do you mean by block diagram & schematic diagram.
- Q.24 Discuss colour coding of lines.