Register No.:	
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# 763

## April 2024

#### <u>Time - Three hours</u> (Maximum Marks: 100)

- [N.B. 1. Answer all questions under Part-A. Each question carries 3 marks.
  - 2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

### PART - A

- 1. What is mean by lag?
- 2. Write the working principle of liquid filled thermometer.
- 3. Name the gauges used for vacuum measurement.
- 4. Define Ionization gauge.
- 5. List the different units of flow.
- 6. Define Weirs.
- 7. Define PI controller.
- 8. Write a principle of open loop system.
- 9. What are the types of Digital computer system?
- 10. List modes of signal.

#### PART - B

11. (a) Explain about principle, types, application and advantages of thermocouples.

(Or)

- (b) Explain the construction and working of bimetallic thermometer with neat sketch.
- 12. (a) Explain the pressure measurement by bellow type pressure sensor with neat diagram.

(Or)

- (b) Explain Linear variable differential transformer.
- 13. (a) Explain the methods of measuring flow using magnetic flow meter.

(Or)

- (b) Explain about level measurement by capacitance type level sensor.
- 14. (a) Explain the application of controls in distillation column.

(Or)

- (b) Explain the block diagram of feed forward control in process control.
- 15. (a) Explain the construction and working of Data logging and transmission using computer.

(Or)

(b) Explain about unit process and plant control.

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