



C14-AEI-405

4417

BOARD DIPLOMA EXAMINATION, (C-14)

OCT / NOV-2017

DAEIE-FOURTH SEMESTER EXAMINATION

PROCESS INSTRUMENTATION - II

Time : 3 Hours]

[Total Marks : 80

PART - A

3 x 10 = 30

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **three** marks.
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. Draw the diagram of C-shaped bourdon tube.
2. State the principle of LVDT pressure transducer.
3. State the principle of Orifice plate.
4. Draw the diagram of electromagnetic flow meter.
5. Draw the diagram of liquid level sight glass.
6. State the principle of inductive type level indicator.
7. State the principle of falling ball viscometer.
8. Draw the diagram of fluid dynamic type densitometer.
9. State the principle of leak detector.
10. State the principle of operation of strain gauge load cell.

/4417

1

[Contd...

*

PART - B

10 x 5 = 50

Instructions : (1) Answer any **five** questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and the criteria for valuation is the content but not the length of the answer.

11. Explain the principle of operation of strain gauge pressure transducer with the help of a diagram.
12. Explain the principle of operation of pressure multiplexer with the help of diagram.
13. a) Explain the principle of variable capacitance type pressure transducer.
b) Explain the principle of operation of Pitot tube.
14. With the help of a diagram, explain the principle of operation of rotameter.
15. With the help of a legible sketch, explain the principle of operation of turbine flowmeter.
16. Explain the principle of operation of resistive type level indicator with diagram.
17. Explain the principle of operation of displacement type densitometer with a diagram.
18. Explain the principle of operation of hydraulic load cell with a diagram.

* * *