



C14-AEI-405

4417

**BOARD DIPLOMA EXAMINATION, (C-14)
MARCH/APRIL—2018
DAEIE—FOURTH SEMESTER EXAMINATION
PROCESS INSTRUMENTATION-II**

Time : 3 hours]

[Total Marks : 80

PART—A

3×10=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. State the necessity of pressure multiplexer.
2. List the applications of electromagnetic flowmeter.
3. State the principle of nucleonic level gauge.
4. State the necessity of density measurement in process industries.
5. State the principle of audio sensor.
6. Draw the C-shaped bourdon tube.
7. Draw the diagram of rotameter.
8. State the principle of float actuated level indicator.
9. Define viscosity.
10. State the principle of leak detector.

- * **Instructions :** (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and the criterion for the valuation is the content but not the length of the answer.

11. Explain the principle of piezoelectric pressure transducer with a diagram.
12. Explain the principle of Pitot tube with a sketch.
13. Explain the principle of fluid dynamic-type densitometer with a diagram.
14. Explain the principle of capacitance-type level indicator with a sketch.
15. Explain the working of strain gauge load cell with a legible sketch.
16. Explain the principle of force balance-type pressure transducer with a legible sketch.
17. Explain the working of ultrasonic flowmeter with a legible sketch.
18. (a) Explain the principle of single capsule with a sketch.
(b) Explain the principle of orifice plate with a sketch.

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