



C14-AEI-306

4219

BOARD DIPLOMA EXAMINATION, (C-14)
SEPTEMBER/OCTOBER - 2020
DAEI—THIRD SEMESTER EXAMINATION
PROCESS INSTRUMENTATION—I

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. Define accuracy.
2. Define calibration.
3. Define sensor.
4. Write the full form of LVDT.
5. List three applications of thermistor.
6. Give classification of temperature transducers.
7. Define pH.
8. State three specifications of digital pH meter.
9. State the necessity of conductivity cells.
10. Give two transducers used for humidity measurement.

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PART—B

10×5=50

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

11. Write about the classification of transducers with each one example.
12. Explain the principle of operation of rotary variable differential transformers.
13. Explain the principle of operation of photoelectric tachometer for angular velocity measurement.
14. Explain the principle of operation of thermocouples.
15. Explain the principle of operation of resistance temperature detector.
16. Describe the measuring and reference electrodes used for pH measurement.

* 17. Explain the principle of operation of condensation type hygrometer.

18. Explain the principle of operation of conductivity meter.
