6217

BOARD DIPLOMA EXAMINATION
MARCH/APRIL - 2019
DIPLOMA IN APPLIED ELECTRONICS AND INSTRUMENTATION ENGINEERING
PROCESS INSTRUMENTATION
THIRD SEMESTER EXAMINATION

Time: 3 Hours **Total Marks: 80**

PART - A (3m x 10 = 30m)

Note 1:Answer all questions and each question carries 3 marks

2:Answers should be brief and straight to the point and shall not exceed 5 simple sentences

1. Define a) Resolution b) Scale readability
2. Define a) Linearity b) Absolute error
3. Draw the diagram of photoelectric tachometer
4. Define temperature
5. Draw the diagram of C-shaped bourdon tube
6. List any three applications of orifice plate
7. List any three applications of ultrasonic flow meter
8. List any three applications of nucleonic level gauge
9. Draw the diagram of capacitance type density measurement
10. State the principle of pneumatic load cell

PART - B (10m x 5 = 50m)

Note 1:Answer any five questions and each question carries 10 marks

2:The answers should be comprehensive and the criteria for valuation is the content but not the length of the answer

11. a) Classify the transducers
    b) List any five requirements of transducers
12. . Explain the principle of operation of RVDT (rotary variable differential transducer) with a diagram
13. Explain the working of thermocouple with diagram
14. Explain the working of thin film pressure transducer with diagram
15. Explain the principle of operation of hot wire/hot film anemometer with legible diagram

16. Explain the principle of operation of capacitive type level indicator with diagram

17. Explain the principle of operation of displacement type density meter with diagram

18. Explain the principle of operation of of pneumatic load cell with a diagram

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