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Register Number :

7859

Name of the Candidate :

**DIPLOMA IN INDUSTRIAL AUTOMATION EXAMINATION
DECEMBER 2013.**

110 — INDUSTRIAL INSTRUMENTATION

Time : Three hours

Maximum : 100 marks

Answer any FIVE questions.

All questions carry equal marks.

1. (a) Mention the units of pressure. (5)
(b) How do you measure vacuum pressure by McLeod gauge? Explain. (15)
2. (a) Explain the process of differential pressure measurement with its neat sketch. (12)
(b) Write short notes on I/P converters. (8)
3. With a neat sketch, describe the construction, principle of operation and characteristics of RTD. (20)
4. (a) What is cold junction compensation? Explain. (10)
(b) Describe the principle of operation of an optical pyrometer. (10)
5. (a) How does a venturiflowmeter work? Explain. (10)
(b) Explain the principle of operation of pitot tube. (10)
6. With suitable diagrams, describe the method of solid flow measurement in detail. (20)
7. (a) Explain the working principle of displacer tube with its neat sketch. (10)
(b) How does a bubbler system work? Explain. (10)
8. Explain any one electrical method for level measurement with its necessary sketches. (20)
9. With neat sketch, describe the construction, principle of operation and characteristics of LVDT. List out its applications also. (20)
10. (a) Draw the architecture of a virtual instrument and explain its various blocks. (12)
(b) List out the advantages of a virtual instrument. (8)