Reg. No. : | | | | | | | | | | |

Question Paper Code: 31651

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

Fifth Semester

Instrumentation and Control Engineering

01UIC501 - INDUSTRIAL INSTRUMENTATION - II

(Common to Electronics and Instrumentation Engineering)

(Regulation 2013)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. State the Bernoulli's equation.
2. Discuss the advantages of the Dall tube and Pitot tube.
3. Write the principle of turbine flow meter.
4. Summarize the application of target flow meters.
5. Mention the applications of electromagnetic flow meters.
6. Name three types of rate of flow meters.
7. Why displacer type level gauges are considered superior to float type gauges?
8. Difference between differential pressure method and hydra step method.
9. Write the desirable characteristics of a viscometer.
10. Formulate the units of humidity information.

PART - B (5 x 16 = 80 Marks)

11. (a) Explain the principle of operation and tapping of orifice meter with neat sketch. (16)

Or

(b) Explain the flow Nozzle and Pitot tube with neat sketch. (16)

12. (a) Describe about the thermal mass flow meters with neat sketch. (16)

Or

(b) Describe with neat sketches, the construction and working of a rotameter and nutating disc. (16)

13. (a) Explain with neat sketches the construction and working of a electromagnetic flow meters. (16)

Or

(b) Illustrate the principle of operation of laser Doppler anemometer with diagram. (16)

14. (a) Discuss the construction, working, merits and demerits of capacitance level indicator and radiation level indicator. (16)

Or

(b) Describe how ultrasonic sensors provide a continuous level measurement. (16)

15. (a) Write short notes on float type and optical type consistency meter. (16)

Or

(b) Explain briefly about moisture measurement of various substances with neat diagram. (16)

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