

V.P. & R.P.T.P. SCIENCE COLLEGE
T.Y.B.Sc. (Sixth semester) Internal Test
Instrumentation (Vocational) US06CINV01
Process Measurement Techniques
Thursday, 06/03/2017



Time: - 11:00 AM To 12:30 PM

Marks: - 25

Q.1 Choose the correct answer (Attempt all)

(3)

I What is the weight of one cubic meter of mercury?

- (a) 10600 kg. (c) 10300 kg.
(b) 13600 kg. (d) 16300 kg.

II Psychrometer is used to measure _____

- (a) Relative flow. (c) Relative pressure.
(b) Relative Humidity. (d) All of above.

III What should the Reynold's no for Laminar flow of fluids?

- (a) 1750 (c) 2800
(b) 2900 (d) 4500

Q2 Answer the following questions (Any three)

(4)

- (1) Write working principle of level gauge using bubbler method.
- (2) Explain principle of simple dew point measuring device.
- (3) Write Bernoulli's expression and explain the terms used in the expression.

Q3 Write a note on Indirect type methods of liquid level measurement. (6)

OR

Q3 Write a note on Resistance and Capacitance type methods of liquid level measurement. (6)

Q4 Explain Electrolytic and Capacitance method for moisture measurements. (6)

OR

Q4 Explain Absorption Hygrometer and Psychrometer with necessary diagrams. (6)

Q5 Explain Venturi meter in detail. Mention its advantages and disadvantages. (6)

OR

Q5 Explain the Rota meter in detail. Also derive its equation for flow rate. (6)