TED (15) -5211
(Revision- 2015)

N21-06385

Reg.No…….....
Signature. .....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE –NOVEMBER -2021.

INDUSTRIAL INSTRUMENTS-II

(Maximum Marks : 75) [Time : 2.15 hours]

PART–A

Marks

I. Answer **any three** questions in one or two sentences. Each question carries 2 marks.

1. Define Laminar flow.
2. List any two positive displacement flowmeter.
3. What is weirs?
4. Define absolute humidity.
5. What is load cell? (3x2=6)

PART - B

II Answer **any four** of the following questions . Each question carries 6 marks.

1. Describe the working of orifice plate flow meter.
2. Derive continuity equation.
3. Explain the working of vortex shedding flow meter.
4. Explain any one method of calibration of flow meter.
5. Describe the working of hydrometer.
6. Explain the operation of wet and dry bulb hygrometer.
7. Explain pneumatic load cell.

[4x6 =24]

PART - C

(Answer **any of the three units** from the following. Each full question carries 15 marks)

UNIT I

III (a) Describe the construction and working of rotameter. (8)

(b) Explain the construction and working of venturi meter. (7)

OR

IV (a) Describe the construction and working of pitot tube. (8)

(b) Explain the different orifice plates. (7)

UNIT- II

V (a) Describe the construction and working of ultrasonic flowmeter. (9)

(b) Explain the working of rectangular notch. (6)

OR

VI (a) Describe the construction and working of oval gear type flowmeter. (8)

(b) Explain the construction and working of hot wire anemometer. (7)

UNIT- III

VII (a) Describe the principle and working of Saybolt viscometer. (9)

(b) Define (i)Absolute viscosity (ii)Kinematic viscosity
(iii)Relative viscosity (6)

OR

VIII (a) Explain capacitance hygrometer method used for moisture measurement. (8)

(b) Describe the operation of dew cell. (7)

UNIT – IV

IX (a) Explain the construction and operation of mechanical tachometer. (8)

(b) Explain the working of hydraulic load cell. (7)

OR

X (a) Describe torque measurement using strain gauges. (8)

(b) Describe the construction and operation of LVDT accelerometer. (7)

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