

KARMACHARI SANGHATANA

Name an instrument which can be used as a primary pressure standard	Deadweight Tester		
Define Reynold's Number and its significance			
Mention one inherent limitation of Pitot tube as flow measuring instrument	Measures point velocity and can not account for velocity profile of fluid through the conduit		
Name two cases where a turbine flowmeter should not be used	Highly viscous fluid	Liquid/gas mixture	
Define β ratio and its expressions for Circular restrictions			
Which of the following can be a bidirectional flowmeter	Orifice flowmeter	Turbine flowmeter	Vortex flowmeter
Which of the following produces max permanent pressure drop	Orifice flowmeter	Turbine flowmeter	Vortex flowmeter
Which of the following is suitable for measuring slurries	Orifice flowmeter	Turbine flowmeter	Vortex flowmeter
High frequency excitation in Magnetic flowmeter produces	High speed of response	Zero stability	Higher accuracy
Low frequency excitation in Magnetic flowmeter produces	Higher accuracy	Zero stability	Both
Periodic zero check is required in which Magnetic flowmeter	AC type	Pulsed DC type	Both
Can Vortex flowmeter be used for low Reynold's Number	Yes	No	
Cavitation should always be prevented in	Orifice flowmeter	Turbine flowmeter	Coriolis flowmeter
The value of Strouhal Number is	0.12	0.17	0.2
If an obstruction is placed in fluid stream, successive vortices will be shed	from a single side only	from opposite sides	Both
The distance between successive vortices in Kármán Vortex Street is	Directly proportional to flow velocity	Inversely proportional to flow velocity	Independent of flow velocity
Which type of detector is predominantly used in Vortex Flowmeter	Capacitance	Strain-gauge	Piezoelectric
Which of the following can be used in mass measurement directly	Orifice flowmeter	Turbine flowmeter	Vortex flowmeter
Which of the following is independent of Reynold's Number	Orifice flowmeter	Turbine flowmeter	Vortex flowmeter
Wetted leg type dp cell may be used for level measurement in	Boiling fluid	Cryogenic fluid	Both

KARMACHARI SANGHATANA

There are two displacers of identical shape size – one for level measurement of a liquid-1 (ρ_1) and the other for interface for liquid-1 & liquid – 2(ρ_2). $\rho_2 > \rho_1$. How will distinguish the two? Mist formation is not a problem for

Ultrasonic Level Transmitter

Radar Level Transmitter Both

Mention a practical disadvantage of Displacer type Level Transmitter

What is composition of K-type thermocouple

+ve: chromel; -ve: alumel

What do you mean by Pt-100

What do you mean by Thermocouple burnout?

In furnaces and superheaters the thermocouple extension wires may pass through flames which insulation to melt and develop a short. As a result, the thermocouple no longer measures the temperature that of the hot spot. This is not detected by the mV readings but can be found out by periodic re

Explain with the help of a balanced bridge circuit the advantage of three wire RTD over two wire RTD

Name an alloy which is used in constructing the sheath of an RTD

Inconel

Which of the following has the fastest response time

Thermocouple

RTD

Thermistor

Which of the following has the maximum range

Thermocouple

RTD

Thermistor

Which of the following is maximum affected by self heating problem

Thermocouple

RTD

Thermistor

As temperature increases, hot body radiation wavelength

increases

decreases

remains unchanged

Which of the following is most suitable to measure temperature of a nuclear reactor

Thermocouple

RTD

Thermistor

Four wire RTD can not eliminate

Lead wire resistance

Switching resistance

Both

Which of the following is best suitable for very narrow range temperature measurement

Thermocouple

RTD

Thermistor

The basic pressure sensing component in a pressure indicator can be

Bellow

Bourdon Tube

Both

	Absolute Pressure	Gauge Pressure	Differential Pressure
What are the three basic categories of Pressure Measurement?			
Which applications require chemical seals to be used in Pressure Transmitters?			
relationship between flow & differential pressure is?	linear	square root	square
define CV of control valve ?			
name the 3 types of valve plug characteristics generally used .	1. linear 2. equal percentage 3. quick opening		
standard pneumatic signal used for instrumentation signal	0-10 psi	3-15 psi	0-15 psi
standard electrical signal used for instrumentation signal	0-20ma	4-20ma	4-24 ma
what is meant by "DPDT" Switch?(Write full form of DPDT.)	Double pole double throw		
Define LVDT	LINEAR VARIABLE DIFFERENTIAL TRANSFORMER		
In a multidrop serial network following protocol is used	RS232	RS485	
Write briefly about PLC ?			
Safety barriers use zener barriers?	TRUE	FALSE	
Define P ,I &D of a process controller?			
1 Kg per Square Cm Gauge Pressure is approximately equal to	4.7 P.S.I.G.	14.2 P.S.I.G.	9 Meters of Water Column
Readings of both Fahrenheit Thermometer and Centigrade Thermometer become same at	(-144 Degree	40 degree	(-)40 degree
A piezo-electric transducer can be used for measuring:	Static pressure	Dynamic pressure	Both static and dynamic pressure
The term "SCADA" stands for	Superior Control and Data Acquiring.	Supervisory Control and Data Acquisition System	Supervisory Control and Data Acquiring

Audio frequency range lies:	Between 20,000 Hz to 30,000 Hz	Above 40,000 Hz	Between 16 Hz to 20,000 Hz
The most commonly used Domestic Fuses in normal House Wiring are of	1A	2.5A	10A
Identify the unit of flow	BTU	Nm ³ /hour	Pascal
Rotameter is used for the measurement	Flow	Humidity	Level
USB in a computer is	Upper side bus connector	Universal serial bus controller	Universal Strip connector
Thermo wells are used with	Thermocouples	RTDs	Conductivity meters
Moisture in the Air or Natural Gas can be measured by	Tachometer	Hygrometer	Proximeter
What is GPRS in cellular telephony?	General power radio services	General packet radio services	General packet ready service
Coriolis principle is widely used in the following instruments	Temperature measurement	Thickness measurement	Pressure measurement
chromatograph is used for	Measuring flow rate of gases	Measuring temperature of gases	Analysing the composition of a gas
Oxygen analyser uses the principle of	Dia magnetism	Para magnetism	Internal permeability
An ON-OFF controller has	Zero gain	Negligible value of gain	very large gain
An Electronic Pressure Transmitter has been calibrated for 4 - 20 Milli Ampere output against a range of 0-70 Kg/Cm ² . At what process pressure this will give 12 Milli Ampere output?	52 Kg/Cm ²	35 Kg/Cm ²	52.5 Kg/Cm ²
555 ICs are generally used in the following application	Amplification	Rectification	Timer
PH Value of acids are	>7	<7	
While internet surfing, if any website appears with "https"	Consider it is not safe	Should not continue	Consider it is relatively secured
If three batteries of 6V, are connected in parallel, what will be the resultant voltage	27V	03V	18V
Which parameter is measured by Orifice meter?	Pressure	Temperature	Flow

Identify the type of level measurement from the following

Air purge

Radar type

Barometric type

**KARIMACHARI
SANGHATANA**