

Program: TE Chemical Engineering

Curriculum Scheme: Revised 2012

Examination: Third Year Semester VI

Course Code: CHC601 and Course Name: Instrumentation

Time: 1 hour

Max. Marks: 50

Note to the students: - All Questions are compulsory and carry equal marks.

Q1.	Following has better reproducibility
Option A:	Thermocouple
Option B:	Expansion thermometers
Option C:	Resistance thermometers
Option D:	Nonresistance thermometer
Q2.	Pyrometers are used for
Option A:	Pressure measurement
Option B:	Low temperature measurement
Option C:	High temperature measurements
Option D:	Flow measurement
Q3.	Which of the following adjustments is usually adjusted first in an instrument requiring calibration?
Option A:	Span
Option B:	Hysteresis
Option C:	Zero
Option D:	Linearity
Q4.	Piezoelectric transducer consists of
Option A:	copper rod
Option B:	aluminum wire
Option C:	gold crystal
Option D:	quartz crystal
Q5.	Express 1000 mm of mercury pressure into kPa
Option A:	136
Option B:	13600
Option C:	13.6
Option D:	1.36
Q6.	Following is a positive displacement meter
Option A:	Anemometers
Option B:	Ultrasound flowmeters
Option C:	Vortex flowmeters
Option D:	Rotary vane flow meter

Q7.	Capacitive transducer is used for?
Option A:	Static measurement
Option B:	Dynamic measurement
Option C:	Transient measurement
Option D:	Lag measurement
Q8.	In order to facilitate the accurate positioning of plug in case of diaphragm_____ are fitted
Option A:	Valve conditioners
Option B:	Valve positioners
Option C:	Valve fixers
Option D:	Valve settings
Q9.	Smallest change which a sensor can detect is_____
Option A:	Resolution
Option B:	Accuracy
Option C:	Precision
Option D:	Scale
Q10.	Which of the following is used as indication instrument in a liquid expansion system?
Option A:	Bellows
Option B:	Bourdon tube
Option C:	Ammeter
Option D:	Thermometer
Q11.	Transducer is used to convert a_____
Option A:	physical quantity into an electrical signal
Option B:	electrical signal into a physical quantity
Option C:	physical quantity into a mechanical quantity
Option D:	physical quantity into a chemical quantity
Q12.	multiplexer is used for
Option A:	accepting multiple inputs
Option B:	accepting single input
Option C:	accepting multiple outputs
Option D:	accepting single output
Q13.	_____ works on the effect of hydrostatic pressure exerted
Option A:	Thermometers
Option B:	Manometers
Option C:	Venturi
Option D:	Orifice
Q14.	Thermocouple generate output voltage according to_____
Option A:	Circuit parameters
Option B:	Humidity

Option C:	Temperature
Option D:	Voltage
Q15.	Liquid flow rate in a small channel is best measured by a/an_____
Option A:	weir
Option B:	pitot tube
Option C:	vane meter
Option D:	venturimeter
Q16.	Which of the following device can be used for force measurement?
Option A:	Beams
Option B:	Bellows
Option C:	Capsule
Option D:	Bourdon tube
Q17.	How many disk technologies used in all rupture disks
Option A:	1
Option B:	4
Option C:	3
Option D:	2
Q18.	It is the ability of the sensor to indicate the same output over a period of time for a constant input.
Option A:	Stability
Option B:	Resolution
Option C:	Error
Option D:	Impedance
Q19.	Following level measuring device works on the hydrostatic head developed by liquid
Option A:	Gauge stick
Option B:	Hook gauge
Option C:	Float gauges
Option D:	Differential pressure gauge
Q20.	Rupture disc is also known as_____
Option A:	Rupture Valve.
Option B:	Rupture thread.
Option C:	Burst Disc.
Option D:	Burst Plate.
Q21.	In case of valve, the ratio of normal maximum flow to minimum controllable flow is called
Option A:	Turndown
Option B:	Turnup
Option C:	Efficiency
Option D:	Range

Q22.	Relief Valve is also known as _____
Option A:	Pressure Relief Valve.
Option B:	Pressure Rest Valve.
Option C:	Pressure Reserve valve.
Option D:	Pressure Reverse Valve.
Q23.	In pitot tube, maximum pressure at the impact opening is called as _____ -
Option A:	Stagnation pressure
Option B:	Absolute pressure
Option C:	Gauge pressure
Option D:	Vacuum
Q24.	_____ motor produces rotation through equal angles,steps, for each digital pulse supplied to its input
Option A:	DC motor
Option B:	AC motor
Option C:	Stepper motor
Option D:	Compound motor
Q25.	A large change in flow rate occurs for small change in valve stem position in _____
Option A:	Equal percentage plug
Option B:	Linear plug
Option C:	Slow opening plug
Option D:	Quick opening plug

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	C
Q2.	C
Q3.	C
Q4	D
Q5	C
Q6	D
Q7	B
Q8.	A
Q9.	A
Q10.	B
Q11.	A
Q12.	A
Q13.	B
Q14.	C
Q15.	B
Q16.	A
Q17.	C
Q18.	A
Q19.	D
Q20.	C
Q21.	A
Q22.	A
Q23.	A
Q24.	C
Q25.	D
