Seat No.:	Enrolment No.

		GUJARAT TECHNOLOGICAL UNIVERSITY	
		BE - SEMESTER-VI (NEW) - EXAMINATION – SUMMER 2016	
Su	ıbject	Code: 2162303 Date: 06/05/201	6
Su	bject	Name: Plastic Process Instrumentation and Process Control	
Ti	me:10	0:30 AM to 01:00 PM Total Marks: 7	<b>70</b>
Ins	truction		
	_	Attempt all questions.	
	2. 3.	Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
	٥.	Tigures to the right indicate run marris.	
<b>Q.1</b>	(a)	Explain functional elements of an instrument along with example.	07
	<b>(b)</b>	Define Calibration, Accuracy, Precision, Drift, Sensitivity, Backlash and True	07
		Value.	
Q.2	(a)	Write a short note on Thermocouple.	07
	<b>(b)</b>	With neat sketch explain Diaphragm Pressure Transducer.	07
		OR	
	<b>(b)</b>	What are the different parts of Injection Molding machine? Explain their	07
		functions.	
Q.3	(a)	Explain construction and working of Strain Gauge Pressure Transducer with the	07
		help of neat sketch. What are its advantages and disadvantages?	
	<b>(b)</b>	Describe the advantages and disadvantages of Filled System Thermometer with	07
		neat sketch.	
$\Omega$ 3	(a)	OR Explain Capacitive type thickness measurement method.	07
Q.3	(a) (b)	Write a short note on P, PI, and PID type of control action.	07
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<b>Q.4</b>	(a)	What are the different methods of temperature measurement? Explain	07
	<b>(b)</b>	Thermistors. What do you mean by process control and explain need of instrumentation.	07
	(D)	OR	U
Q.4	(a)	Explain Hook type level indicator and air purge system of level indication.	07
ζ	(b)	Explain radiation pyrometer with neat sketch.	07
Q.5		Write a short note on Feedback Control System.	07
Ų.S	(a) (b)	Enlist methods of flow measurement and explain any one in detail.	07
		OR	0 1

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Describe block diagram representation of process control systems. Enlist types of Process control systems and explain Cascade control system.

**Q.5** 

(a)

**(b)** 

**07** 

**07**