Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma Engineering - SEMESTER–V • EXAMINATION – SUMMER 2014

Subject Code: 351701 **Date: 23-05-2014**

Subject Name: Electronic & Pneumatic Instrumentation

Time: 2:30 pm - 5:30 pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**
4. **English version is considered to be Authentic.**

Q.1	(a)	Classify the electronics instruments & list instruments in each sub category.	07
	(b)	How does a C R O function? List the operating controls of it	07
Q.2	(a)	State the need for isolation. Explain any one in brief	07
	(b)	How does a flapper nozzle system work? Explain	07
		OR	
	(b)	Why pneumatic relay is used? Explain any one type of pneumatic relay	07
Q.3	(a)	Explain the working of an Electronic P+I+D controller with a diagram.	07
	(b)	How does a pneumatic P+D controller work? Explain with diagram	07
		OR	
Q.3	(a)	Explain the working of a Pneumatic P+I+D controller with a diagram.	07
	(b)	How does a electronic P+I controller work? Explain with diagram	07
Q.4	(a)	Explain with diagram Electronic Differential Pressure Transmitter.	07
	(b)	Why is current transformer needed? Explain the working principle.	07
		OR	
Q. 4	(a)	Compare the LCD display with LED type display.	07
	(b)	Why is potential transformer needed? Explain the working principle	07
Q.5	(a)	How does SMART instruments differ from normal one? Explain	07
	(b)	Explain moment balance principle with a diagram.	07
		OR	
Q.5	(a)	Explain the Anderson bridge drawing its circuit diagram.	07
	(b)	How is a controller aligned & tuned?	07

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