

GUJARAT TECHNOLOGICAL UNIVERSITY
DIPLOMA ENGINEERING – SEMESTER – • EXAMINATION – SUMMER 2013

Subject Code:2361923**Date: 20/5/2013****Subject Name: ADVANCE INDUSTRIAL ENGINEERING****Time:10:30 am – 1:00 pm****Total Marks: 70****Instructions:**

1. Attempt any five 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) Explain Deming's 14 points for quality control improvement 7
 (b) Explain 'Make or buy' decision for process planning 7
Q.2 (a) Explain Juran trilogy 7
 (b) Draw and describe Ishikawa's companywide quality control 7

OR

- Q.2** (a) Explain poka yoke method with example 7
 (b) No. of defects of the samples taken from the products manufactured in an industry
 Total 10 samples were taken .Draw P-chart and give your opinion regarding the process is under control or not 7

No.of Product	200	200	200	200	200	200	200	200	200	200
Defective Product	12	4	8	3	7	6	0	8	5	9

- Q.3** (a) Explain Quality Assurance and its advantages 7
 10 random samples were taken from the pins produced on a lathe. The diameters are measured as under .Draw control chart & give opinion regarding process is under control or not

(b)	1	2	3	4	5	6	7	8	9	10	7
	14.8	14.9	14.8	15.0	14.6	16.1	15.2	14.8	14.9	14.9	
	15.1	14.6	14.9	16.2	15.1	14.7	15.1	15.4	15.9	16.3	
	15.0	15.2	15.2	14.9	15.3	14.9	15.3	15.2	15.5	14.8	
	14.9	15.1	15.3	14.7	14.8	15.1	15.1	14.9	14.5	15.3	

OR

- Q.3** (a) Explain stages of QFD 7
 (b) Explain House of Quality 7
Q.4 (a) Describe method of registration process of ISO 9000 7
 (b) Explain integrated model of TQM 7

OR

- Q.4** (a) Write Short Note On “ Kan-ban “ System In “ Just In Time (JIT) 7
 (b) Explain In Brief “ Just In Time (JIT)” Concept 7
Q.5 (a) State Benefits Of “ Just In Time (JIT) 7

(b) Explain Seven Problem Solving Tools for Quality Control 7

OR

Q.5 **(a)** Explain Tools and techniques of reengineering process 7

(b) Difference between Quality Control and Inspection 7