Seat No.:	Enrolment No.

**Subject Name: Industrial Statistics and Quality Management** 

Subject Code: 171504

Time: 10:30am to 1:00pm

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

## **BE - SEMESTER-VII EXAMINATION - WINTER 2015**

Date: 04/12/2015

**Total Marks: 70** 

Q.1	(a)	Define statis		xplain	the role	of sta	itistics	in the	field of	quality	
	<b>(b)</b>	management. "Dispersion measures of examples.	is as ir	-							
2.2	(a)	"A true tot Satisfaction"	-	-	ronment	can h	ave onl	y one i	focus: C	Customer	
	<b>(b)</b>	The profits e Find (1) the confirm who Calculate Q1	arned by value o	7 100 top f mean, e distrib	median oution is	and mod	de the fi	requency	distribu	tion and	
		Profits (in billions)	5	10	15	20	25	30	35	40	
		No. of companies	2	7	14	27	48	64	84	75	
						OR by polygon & a frequency curve, (b) A bar					
	<b>(b)</b>	Distinguish the chart & a his		(1) a fi	equency		n & a fr	equency	curve, (	b) A bar	
2.3	(b) (a) (b)	_	togram. ie key fa	ctor for	success (	polygon of any incle for an	dustry in	the wor			
).3 ).3	(a)	chart & a hist "Quality is th Discuss the in  In an audit of of bills conta  (i) Exact	togram.  The key fae to the key fae	ctor for section of Quany's bis or what section with er	success of ality circular and is the property of the property	polygon of any incle for an <b>OR</b> auditor robability	dustry in ny organi randomly	the worzation.	ld" – Dis	scuss.	
	(a) (b)	chart & a hist "Quality is the Discuss the in  In an audit of of bills conta	togram.  The key far the mportan  If a comprish an errolly 2 billed the criteria	ctor for sece of Que pany's bigor what so with eres not core	success of ality circon lling an is the pro- ror ataining of good mo	of any incle for an OR auditor robability error.	dustry in a y organic randomly that aud	the worzation.  y selects litor will	ld" – Dis five bills find	scuss.	
	(a) (b) (a)	chart & a hist "Quality is the Discuss the in  In an audit of of bills conta  (i) Exact  (ii) At lead  What are the	togram.  The key far the mportan  If a comprish an errolly 2 bills the criterian and more than the more than the criterian and the criterian and more than the criterian and the criterian and the criterian and more than the criterian and the c	ctor for second Quany's bigor what so with eres not correct of a code in the	success of ality circon lling an is the pro- ror ntaining of good mode e light of	of any incle for an OR auditor robability error.	dustry in any organic randomly that audit from the central riteria.	the worzation.  y selects litor will tendend	ld" – Dis five bills find ey? Com	scuss. s. If 10% apare the	

Discuss the linkage between quality and productivity with suitable examples. **Q.4** 

The following table gives the distribution of the total population and those who are totally and partially blind among them.

Find out if there is any relation between age and blindness:

Age:	0-10	10-20	20-30	30-40	40-50	50-60	60-70
No. of Persons	100	60	40	36	24	11	6
(In thousands)							
Blind	55	40	40	40	36	22	18

Q.5 Differentiate between single sampling plan and double sampling plan. (a)

**07** Wrote short note: ISO 9000 and its necessity. **07 (b)** 

**Q.5** What does the control charts tell us about the process? How can the quality be **07** improved by the use of these charts?

**(b)** Write short note: TQM: Scope and Application. **07** 

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