Enrollment No:	Exam Seat No:

C.U.SHAH UNIVERSITY

Winter Examination-2015

Subject Name: Advanced Statistics

Subject Code: 5MC03AST1 Branch: M.Com. (English)

Semester: 3 Date: 1/12/2015 Time: 2:30 To 5:30 Marks: 70

Instructions:

- (1) Use of Programmable calculator and any other electronic instrument is prohibited.
- (2) Instructions written on main answer book are strictly to be obeyed.
- (3) Draw neat diagrams and figures (if necessary) at right places.
- (4) Assume suitable data if needed.

SECTION - I

Q-1 **Attempt the Following questions** (07)When t-test is applied? 1 **b.** When is null hypothesis accepted? 1 **c.** Write the formula of Z-test when two means are known. 1 **d.** Explain expected profit. 1 **e.** What is point estimation? 1 State various levels of significance. 1 g. Explain mutually exclusive events. 1 **Q-2 Attempt all questions** (14)a. Explain hypothesis in detail. **b.** Write the features of hypothesis. 7 OR **Attempt all questions Q-2** (14)

a. Test the following data using 5% level of significance.

City	Mean	S.D.	Sample Size
A	57	5.3	5
В	61	4.8	7

7

b. Setup an analysis of variance table for the following two-way design results:

Varieties of seeds								
Varieties of	A	В	C					
fertilizers								
W	6	5	5					

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		X		/		5			4			
		Y		3		3			3			
		Z		8		7			4			
Q-3		Attempt all	questio	ns				,				(14)
	a.										14	
		-		-			OR					
Q-3	a.	Discuss vario	ous elen	nents o	f deci	ision 1	theory	prob	lems.	(in de	tails)	7
					Sl	ECT:	ION	– II				
Q-4		Attempt the	Follow	ing qu	estio	ns						(07)
	a.	What is the t						_	nifica	ance?		1
	b.	t-test paired					ation.					1
	с.	When is one						_				1
	d.	What are the						?				1
	e.	First type of										1
	f.	Probability of					etwee	n	• • • • • •			1
	g.	If A= U then	, P (A)	=		• • •						1
Q-5		Attempt all	anestia	ns								(14)
Q-5	a.	Calculate t-to			llowi	ing de	tails (5% le	vel o	f sioni	ficance)	7
			ost using	5 4110 10	,110 ,,1		(<i>5</i> 70 10	V C 1	. 518111		,
		Student 1	2	3	4	5	6	7	8	9		
		Before 10) 15	9	3	7	12	16	17	4		
		After 12	2 17	8	5	6	11	18	20	3		
	b.	Explain data	collecti	on and	colle	ection	of sec	conda	ry dat	a.		7
		1					OR		•			
Q-5		Attempt all	questio	ns								
	a.	Setup an ana	lysis of	varian	ce tab	ole for	: the f	ollow	ing da	ıta.		7
		V	ariety o	of Whea	at							
		A	В			C						
		6	5			5						
		7	5			4						
		3	3			3						
		8	7			4		_				_
	b.	Discuss inter	view m	ethods	of da	ıta col	lectio	n and	its m	erits a	nd demerits.	7
0.6		Attompt all	anastia	nc								(14)
Q-6	a.	Attempt all questions Explain measures of central tendency with their formulas									7	
	а. b.	1								7		
	D.	between monthly earnings of workers in two cities.							,			
									Sample Size	7		
					earnir		-		data		~p10 5120	
		A			695	_			40		200	1
										175	1	
				1	. 10						1	_

X





Q-6

Attempt all Questions a. Explain addition and multiplication theorems of probability. b. n = 59, $p^{\hat{}} = 0.24$, p = 0.25, q = 0.75, $(0.24 \le p^{\hat{}} \square 0.27) = ?$ 7 7

