Roll No.....

## SEMESTER EXAMINATION 2022-2023

## (1<sup>st</sup> Year 1<sup>st</sup> Semester– B.B.A.LL.B-)

## **Quantitative Practice and Business Statistics**

Duration: 3:00 hrs.

Max Marks: 70

## Note: Attempt all questions. All questions carry equal marks. In case of any ambiguity or missing data, the same may be assumed and state the assumption made in the answer.

Q 1	Answer any four parts of the following w	ithin 100 to 125 words.	4x3.5=14							
	<ul><li>a) Describe secondary data. What are their them?</li><li>b) Elaborate dispersion in statistics? Enlist t</li><li>c) Elucidate statistics and their types. Disc</li></ul>									
	<ul> <li>c) Elucidate statistics and their types. Discuss the importance of trade, commerce and business. What are the major limitations of statistics?</li> <li>d) Discuss the properties of correlation coefficients.</li> </ul>									
	<ul><li>d) Discuss the properties of correlation coefficients.</li><li>e) Discuss the significance of sampling distribution and the limitation of sampling</li><li>f) Discuss the role of Statistics in the modern era? Write the use and applications of statistics.</li></ul>									
Q 2.	Answer any four parts of the following within 100 to 125 words.									
	a) Write the difference between correlation and regression. How can you analysis a company?									
	b) In a correlation study following values were obtained: <b>X Y</b>									
	Arithmetic Mean 65 Standard 2.5 Coefficient of	67 3.5								
	<ul> <li>Correlation R=0.8</li> <li>find the two regression equations that are associated with the above values</li> <li>c) A family with a monthly income of ` 20,000 had planned the following expenditures per month under various heads:</li> </ul>									
	Heads									
	Grocery	4								
	Rent	5								
	Children's Education	5								
	Medicine	2								
	Fuel	2								

<ul> <li>Draw a b</li> <li>Draw a b</li> <li>Draw a b</li> <li>Description</li> <li>Description</li> <li>Description</li> <li>Answer</li> <li>a) The n</li> <li>Clain</li> <li><i>Clain</i></li> <li>b) What good</li> <li>c) Calcu</li> <li>X</li> <li>F</li> </ul> Answer <ul> <li>a) Defin</li> </ul>	ribe standa orate price ribe Norma tance of no r any two p median of t ass requency t is meant b 1 measure of alate the m	for the data ard error. D index num al Distribut ormal distri parts of the the followin 0-10 5 by the meas of central to ean deviati 10 4	Discuss the iber and q ion. What ibution ie followin ng distrib 10-20 ? sure of ce endency?	uantity in are the p ng within ution is 2 20-30 ? ntral tend	ndex prope n 200 25. Fi 0 dency	number. erties of No. <b>) to 250 w</b> and out its 30-40 10 y? What an series :	ormal Dis ords Quartile 1 40-50 5	tributio	n write t	
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b) What good c) Calcu X F Answer a) Defin	t is meant t d measure of alate the m	by the meas of central to ean deviati 10	sure of ce endency? ion from t	ntral tend	ving s	y? What an series :	re the cha		tics of a	
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a) Defin										
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	r any two j	parts of th	e followi	ng within	n 200	) to 250 w	ords.			2x7=1
rando	a) Define random variable. How do you distinguish between discrete and continuous									
random variables? Illustrate your answer with suitable examples.										
b) Calcu	ulate the A	the followi	ng:							
		14 15-19			25-2		0	5-39	40-44	
Freque	ency 5	15	28	,	24	17	1	0	1	
c) The following table contains information from the raw material purchase records of a small factory for the year 2020-21 and 2021-22:										a
	Commodit			Total valu		2021-20	22 TO	DTAL		
A B		Price a	a	(Rs.)		Price a	V	ALUE		
		(Rs./u	nit)		(Rs./ur		,			
		5		50 84 80		6	71			
		7				10	80			
	С					12	98			
				29		5		30		1
Calculat	D	4				• ~	· ·			
		4 ideal index			at it s	satisfies th	e time re		est	

Q 5.	5. Answer any two parts of the following within 200 to 250 words										2x7=14	
	<ul><li>a) Describe the properties of a good estimator? Explain how these properties are essential for estimating the population characteristics of interest.</li></ul>											
	<b>b</b> ) Find the two regression equations from the following data:											
	Χ	2		4	5	5		8	10			
	Y	6		7	9	10		12	12			
	<ul><li>Also, estimate Y when X is 13 and estimate X when Y is 15.</li><li>c) Fit a linear trend curve by the least-squares method to the following: Year</li></ul>											
	YEAR	2013	2014	2015	2016	2017	2018	2019	2020	2021	20 22	
	OUT PUT	3	5	5	6	7	8	10	12	13	15	

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