

Q.4		Rainfall	Yield
	Mean	70"	800kgs
	Standard Deviation	5	4
	Correlation	0.7	

Find two regression lines, Estimate yield when rainfall in 80". (4,4,2)

Q.5 Explain the procedure for constructing control charts for variables. (10)

Q.6 What are various problems in construction of index numbers. (10)

Q.7 Calculate 3 yearly moving average (10)

year 2000	2001	2002	2003	2004	2005	2006
Sale 100	180	120	200	250	140	270

No. of Printed Pages : 4

Roll No.

124123/084123

2nd Sem. / F.A.A

Subject : Business Statistics - II

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note:Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1
- Define correlation
 - linear & non linear correlation
 - Formula of Karl Pearson's coefficient of correlation.
 - Define probable error(P.E.)
 - Formula of rank correlation coefficient
 - Define regression.
 - Write down the regression equations of x on Y and y on X .
 - What does regression coefficient of x on Y indicate.
 - Why regression line is called as line of best fit.

- j) Merits of rank correlation.
- k) Advantages of statistical quality control.
- l) Time reversal test.
- m) Define time series.
- n) Additive model of time series.
- o) Process control
- p) Name the components of time series.
- q) Range chart
- r) Mean chart

- viii) Properties of coefficient of correlation
- ix) Usefulness of regression analysis
- x) Scatter diagram
- xi) Weighted index numbers
- xii) Correlation and causation
- xiii) P chart and np chart
- xiv) Meaning of deflating
- xv) Covariance of $x+y = 20$
 Variance of $x = 25$
 Variance of $y = 36$
 Find coefficient of correlation

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

- Q.2
- i) Merits of moving average method.
 - ii) Demerits of methods of least squares
 - iii) Selection of base year.
 - iv) Control limits
 - v) Explain simple average of price relative method of index number
 - vi) Ideal index number formula.
 - vii) Uses of index numbers.

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SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.3

Commodity	A	B	C	D	E
Prices in 2000	5	8	12	20	3
Prices in 2010	7.5	16	18	15	5

Construct index No. using

- a) Simple aggregate method
- b) Average of price relative method (5,5)

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