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Total No. of Pages : 2

B.B.A. (Part - II) (Semester - III) Examination, Nov. - 2013
STATISTICAL TECHNIQUES FOR BUSINESS (Paper - I)
Sub. Code : 43940

Day and Date : Friday, 29 - 11 - 2013 **Total Marks : 40**

Time : 3.00 p.m. to 5.00 p.m.

Instructions : 1) All questions are compulsory.
2) Figures to the right indicate full marks.
3) Graph paper will be supplied on request.
4) Use of non programmable calculator is allowed

Q1) Attempt any two : **[14]**

a) Define statistics. Distinguish between primary data and secondary data.

b) Define mean and mode. Calculate mean and mode from the following data.

No. of Children (x)	1	2	3	4	5	6	7
No. of Families (f)	7	9	25	22	18	11	8

c) Define spearman's rank correlation co-efficient and find it for following data.

Values of x	43	34	36	50	45	43	42
Values of y	112	115	120	110	108	113	101

Q2) Attempt any Two : **[16]**

a) Following data gives number of catches taken by Dhoni and Kartik behind the wickets. Find, who is consistent in the matter of taking catches?

Catches taken by	Dhoni	4	5	3	4	2
	Kartik	1	0	4	4	1

b) What is an less than ogive curve? Draw a less than ogive curve from the following data and hence determine median from it.

marks	0-10	10-20	20-30	30-40	40-50	50-60
No. of students	3	9	15	30	18	5

P.T.O

c) State the equations of two regression lines.

From 10 observations on price (x) and supply (y) of a commodity the following data were obtained.

$\Sigma x = 130$, $\Sigma y = 220$, $\Sigma x^2 = 2288$, $\Sigma xy = 3467$.

Compute the equation of the line of regression of y on x and estimate the supply when price is 16 units.

d) Define median and state its merits and demerits. Compute the values of mean and median for the following data.

class	10-20	20-30	30-40	40-50	50-60
Frequency	7	9	15	11	8

Q3) Attempt any two : **[10]**

a) State the relationship between mean, median and mode. Use it to find mean, it median is 43 and mode is 40.

b) Define M.D. about mean. Find M.D. about mean for the following observations.

35, 31, 29, 63, 55, 72, 37.

c) Define correlation coefficient between two variables x and y. Calculate the correlation coefficient between x and y for the following data and comment on your result.

x	3	5	4	6	2
y	3	4	5	2	6

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B.B.A. (Part - II) (Semester - III) Examination, April - 2014
STATISTICAL TECHNIQUES FOR BUSINESS (Paper - I)
Sub. Code : 43940

Day and Date : Thursday, 10 - 04 - 2014 **Total Marks : 40**
Time : 3.00 p.m. to 5.00 p.m.

Instructions :
1) **All questions are compulsory.**
2) **Figures to the right indicate full marks.**
3) **Graph paper will be supplied on request.**
4) **Use of non programmable calculator is allowed.**

Q1) Attempt any Two: **[14]**

a) Define the terms (i) Sample (ii) Sampling

Explain SRSWR and SRSWOR.

b) The following information about employees of two factories is given

	Factory A	Factory B
Number of employees	50	100
Mean wage in Rs. Per month per employees	120	85
Variance of the wages per month per employees	9	16

Find combined variance and combined C.V. of two factories A and B together

c) Define Spearman's rank correlation coefficient. Find rank correlation coefficient and comment on your result.

X	51	34	50	56	50
Y	34	50	42	50	55

Q2) Attempt any Two: **[16]**

a) Explain in brief the construction of a less than Ogive curve.

Draw a less than Ogive curve from the following data and hence determine Median.

Age (in years):	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60
No.of workers	18	32	45	60	50	36	25	14

P.T.O.

b) State the relation between correlation coefficient and regression coefficients and verify them by using following data.

X	2	3	4	7	6
Y	10	7	3	1	2

c) Define Standard Deviation (S.D.) and Coefficient of Variation (C.V.). The following is the record of number of wickets taken by a bowler.

No.of wickets in each match	0	1	2	3	4	5
No.of matches played	10	12	15	20	7	6

Find S.D. and its coefficient for number of wickets.

d) State the requirements of a good measure of central tendency. Obtain values of mode and mean for the following data.

Class	10-20	20-30	30-40	40-50	50-60
Frequency	7	9	15	11	8

Q3) Attempt any Two: **[10]**

a) Define A.M. The mean of 50 items is 100. At the time of calculations two items 180 and 80 were wrongly taken as 100 and 10. Find the correct value of mean.

b) Interpret if $r = +1$, $r = -1$, $r = 0$, where r is correlation coefficient.

c) Obtain the value of M.D. about mean and its coefficient from the following data.

x	2	3	4	5	6	7	10
f	5	10	15	6	4	3	2