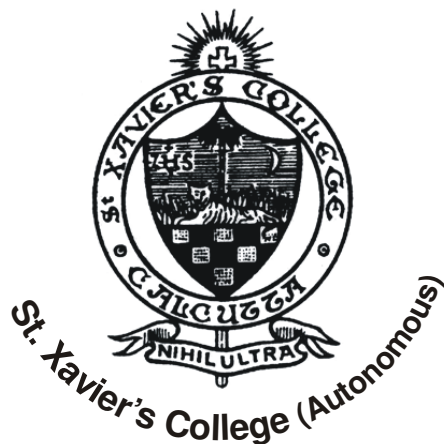


Student's Roll No.		-			-			-				
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**1st SEMESTER EXAMINATION – BBA
NOV – DEC 2009**

**BUSINESS STATISTICS - I
(HONOURS)**

BSTA3101

Tuesday, December 15, 2009

09:30 am to 11:30 am

Time allowed: 2 hours

Full Marks: 50

Instructions:

- Use fountain pen or ball-point pen of blue or black ink.
- Answer in own words as far as practicable.
- Do not write anything on the Question paper other than Roll No.

ANSWER QUESTION NO. 1 AND ANY FOUR FROM THE REST

1. Answer ANY FIVE questions: (5 X 2 = 10)
- (a) Distinguish between primary and secondary data.
 - (b) The A.M. of two observations is 25 and their H.M. is 9. Find their G.M.
 - (c) Find the mean deviation about median of the numbers 1, 5, 8, 3, 2.
 - (d) If $y = 5 - 2x$ and $\bar{x} = 10$ and $\sigma_x = 3$ find \bar{y} and σ_y .
 - (e) If $\sigma_y = 4$, $b_{yx} = 0.48$, $r = 0.6$ and σ_x .
 - (f) If C.V = 60% and variance = 36, find mean.
 - (g) If $y = 3x^2 - 4x + 1$, find $\Delta^3 y$.
 - (h) If for a mesokurtic distribution 4th central moment is 243, find the standard deviation.

2. (a) Draw a Histogram to represent the following distribution:

Weight in Kg	45 – 50	50 – 55	55 – 60	60 – 65	65 – 70
No. of students	500	700	300	400	100

(4)

- (b) The median and mode of the following distribution of 230 observations are 33.50 and 34 respectively. Find the missing frequencies.

Class	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70
Frequency	4	16	–	–	40	–	4

(6)

3. (a) Karl Pearson's co-efficient of skewness of a distribution is 0.4. Its standard deviation is 8 and mean is 30. Find median and mode of the distribution. (4)
- (b) For a set of 10 observations, the arithmetic mean and the co-efficient of variation (c.v.) are 40 and 40% respectively. If one observation equal to 50 is left out, what will be the value of A.M. and C.V. for the remaining 9 observations in the set. (6)
4. (a) Prove that Fisher's formula for index number satisfies factor reversal test. (4)
- (b) Find the co-efficient of correlation from the following data:

x	10	6	2	4	5	11	7	10
y	9	4	8	6	5	8	10	5

(6)

