

(20113)

Roll No. ....

B. B. A. I Sem.

**O3041**

**B. B. A. Examination, Dec. 2012**

**Business Statistics**

**(BBA-104)**

**(Old Course-II)**

*Time : Three Hours*

*[Maximum Marks : 75*

*Note : Answer any five questions. All questions carry equal marks.*

1. Define statistics. Explain its functions clearly. 15
2. What do you understand by statistical errors ? What are their various kinds ? 15
3. (a) What are the essential requisites a good average ? 5  
(b) Calculate geometric mean from the following data : 10

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Size of item	Frequency
10	2
11	4
12	5
13	3
14	3
15	2
16	1

4. Calculate the standard deviation and its coefficient of the following series : 15

Marks (more than)	No. of Students.
0	100
10	90
20	75
30	50
40	20
50	10
60	5
70	0

5. Calculate Karl Pearson's coefficient of skewness and coefficient of skewness based on quartiles for the following frequency distribution : 15

Measurement	3.5	4.5	5.5	6.5	7.5	8.5	9.5
Frequency	3	7	22	60	85	32	8

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6. Below given are the figures of production (in thousand tons) of coal mine :

Year	Production (in thousand tons)
1979	70
1981	85
1982	94
1983	83
1984	90
1985	100
1988	98

- (i) Fit a straight line by the method of Least-squares and calculate the trend values.
- (ii) What is the monthly increase in the production of coal ? 15

7. Calculate the Karl Pearson's coefficient of correlation :

A	44	46	46	48	52	54	54	56	60	60
B	36	40	42	40	?	44	46	48	50	52

Take deviations from actual mean 52 and 44 respectively. 15

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8. Construct Fisher's ideal index number from the following data and show that it satisfies the time reversal and factor reversal tests : 15

Commodity	Base Year		Current Year	
	Price	Quantity	Price	Quantity
A	8	50	12	40
B	4	30	8	20
C	10	25	12	40
D	5	50	4	100

9. Explain the concept of regression. How does it differ from correlation ? 15
10. Write short notes on any three of the following : 5×3
- (i) Primary and secondary data
  - (ii) Statistical regularity
  - (iii) Harmonic mean
  - (iv) Cost of living index numbers
  - (v) Rank correlation.