

Roll No. ....

Total Pages : 6

**14613**

**BBA/D-15**

**BUSINESS STATISTICS-I**

**PAPER: BBA-203**

Time: Three Hours

[Maximum Marks:

Regular: 80

Reappear: 90

**Note:** there are eight questions in this paper. All questions carry equal marks. Attempt five questions in all. Question No. 1 is Compulsory.

**1. Compulsory Question**

**Explain/answer the following parts in very short:**

- (a) What are mathematical properties of arithmetic mean?
- (b) Differentiate between dispersion and skewness.

The rate of increase in population of a country during the last three decades is 5%, 8% and 12%. Find the average rate of growth during obtain the last three decades.

- (c) Define index numbers
- (d) What is need of sampling?
- (e) List out sources of secondary data.
- (f) Meaning of kurtosis.
- (g) Write formula of geometric mean harmonic mean.

- 2. (a) Describe uses of statistical methods like average, dispersion, graphs, tabulation and sampling.
- (b) Draw a pie diagram to represent the following data of proposed expenditure by a state government for the year 2014-15:

Items	Proposed exps. (In million Rs.)
Agriculture & Rural Dev.	4200
Industry & Urban Dev.	1500
Health & Education	1000
Miscellaneous	500

3. Describe any four methods of collecting primary data by giving merit and demerits of each.
4. (a) What is meant by dispersion? What are chief features of good measure of dispersion?  
  
(b) Compare mean deviation and standard deviation as measure of dispersion. Which is better out of the two?
5. Calculate Karl Pearson's coefficients of skewness from the data given below:

Hourly wages (Rs)	No of Workers
40-50	5
50-60	6
60-70	8
70-80	10
80-90	25
90-100	30
100-110	36
110-120	50
120-130	60
130-140	70

6. Calculate Lapser's, paasche's and Fisher's indices for the following data. Also examine which of the following indices satisfy (i) Time reversal test, (ii) factor reversal test.

commodity	Base year		Current year	
	price	quantity	price	quantity
A	6.5	500	10.8	560
B	2.8	124	2.9	148
C	4.7	69	8.2	78
D	10.9	38	13.4	24
E	8.6	49	10.8	27

7. What do you mean by business forecasting? What is need of forecasting? Illustrate any three methods of Business forecasting.
8. Explain and illustrate the following:
  - (a) Moving average
  - (b) Reliability of sample
  - (c) Simple random sampling method
  - (d) Uses of Microsoft excel in statistics.