BUSINESS STATISTICS-I

Time : Three Hours   Maximum Marks :
         [Regular Candidates : 80, Reappear Candidates 90]
Note : Attempt *five* questions in all. Question No. 1 is compulsory.

1.   Explain/answer the following questions :
     (a)   Limitations of statistics
     (b)   Prepare list of data analysis tools
     (c)   Progressive average
     (d)   Kurtosis

2.   The following are the figures of sales and net profits of a company over the last three years (in per cent change over previous year)

Year	Sales growth	Net Profit
1999 – 2000	15	30
2000 – 2001	12	53
2001 – 2002	18	–30

Present this data by a suitable bar chart.

3.   An examination was held to decide the award of a scholarship. The weights of various subjects were different. The marks obtained by 3 candidates (out of 100 in each subject) are given below :

Subject	Weight	Students (marks)		
		A	B	C
Mathematics	4	60	57	62
Physics	3	62	61	67
Chemstiry	2	55	53	60
English	1	67	77	49

Calculating the weighted A. Mean to award the scholarship.

4. The following distribution gives the pattern of overtime work per week done by 100 employees of a company. Calculate median, first quartile and seven decile.

Overtime (hrs.) :	10-15	15-20	20-25	25-30	30-35	35-40
No. of employees :	11	20	35	20	8	6

5. Find the mean absolute deviation from mean for the following frequency distribution of sales (Rs.' 000) in a co-operative store.

Sales :	50-100	100-150	150-200	200-250	250-300	300-350
No. of days :	11	23	44	19	8	7

6. Describe meaning, need, steps and methods of business forecasting.

7. (a) Describe non-probability methods of sampling.

   (b) What are sampling errors ? How can we control them ?

8. Compute by Fisher's formula the quantity index number from the data given below :

Commodity	2000		2001	
	Price per unit (Rs.)	Total Value	Price per unit (Rs.)	Total Value
A	5	50	4	48
B	8	48	7	49
C	6	18	5	20