MATHEMATICS

DPP

DAILY PRACTICE PROBLEMS

DPP No. 85

Total Marks : 31

Max. Time : 38 min.

Topic : Statistics

Type of Questions		**M.M., Min.**
Single choice Objective (no negative marking) Q.1	**(3 marks, 3 min.)**	**[3, 3]**
Subjective Questions (no negative marking) Q.2,3,4,5,6,7,8	**(4 marks, 5 min.)**	**[28, 35]**

1. If the S.D. of a set of observations is 8 and if each observation is divided by –2, the S.D. of the new set of observations will be :

(A) –4 (B) –8 (C) 8 (D) 4

2. Find the mean marks of students from the following cumulative frequency distribution :

Marks	Number of students	Marks	Number of students
0 and above	80	60 and above	28
10 and above	77	70 and above	16
20 and above	72	80 and above	10
30 and above	65	90 and above	8
40 and above	55	100 and above	0
50 and above	43		

3. Compute the mode for the following frequency distribution :

Size of items	0 – 4	4 – 8	8 – 12	12 – 16	16 – 20	20 – 24	24 – 28	28 – 32	32 – 36	36 – 40
Frequency	5	7	9	17	12	10	6	3	1	0

4. The mean and variance of 7 observations are 8 and 16 respecitvely. If 5 of the observations are 2, 4, 10, 12, 14 find the remaining two observations.

5. For a group of 200 candidates the mean and S.D. were found to be 40 and 15 respectively. Later on it was found that the score 43 was misread as 34. Find the correct mean and correct S.D.

6. Calculate the mean and standard deviation for the following data :

Wages upto (in Rs.)	15	30	45	60	75	90	105	120
No. of workers	12	30	65	107	157	202	222	230

7. The sum and sum of squares corresponding to length x (in cm) and weight y (in gm) of 50 plant products are given below :

$\sum_{i=1}^{50} x_i = 212$, $\sum_{i=1}^{50} x_i^2 = 902.8$, $\sum_{i=1}^{50} y_i = 261$, $\sum_{i=1}^{50} y_i^2 = 1457.6$

Which is more varying the length or weight ?

8. Coefficient of variation of two distributions are 60% and 70% and their standard deviations are 21 and 16 respectively. What are their arithmetic means ?

Answers Key

1. (D) **2.** 51.75 Marks **3.** 32.66

4. x = 6, y = 8 **5.** 14.995 **6.** 25.883

7. 26.43 **8.** 35, 22.85