Chapter 14

ASSIGNMENT

OBJECTIVE 14.1

1. The median of following series is 520, 20, 340, 190, 35, 800, 1210, 50, 80

(A) 1210 (B) 520 (C) 190 (D) 35

2. If the arithmetic mean of 5, 7, 9, x is 9 then the value of x is

(A) 11 (B) 15 (C) 18 (D) 16

3. The mode of the distribution 3,5,7,4,2,1,4,3,4 is

(A) 7 (B) 4 (C) 3 (D) 1

4. If the mean and median of a set of numbers are 8.9 and 9 respectively, then the mode will be

(A) 7.2 (B) 8.2 (C) 9.2 (D) 10.2

5. A student got marks in 5 subjects in a monthly test is given below :

(A) 2,3,4,5,6, in these obtained marks, 4 is the

(A) Mean and median (B) Median but no mean (C) Mean but no median (D) Mode

6. What is the mode from the following table :

Marks obtained	3	1	23	33	43
Frequency (f)	7	11	15	8	3

(A) 13 (B) 43 (C) 33 (D) 23

7. If the class intervals in a frequency distribution are (72 - 73.9), (74 - 75.9), (76 - 77.9), (78 - 79.9) etc., the mid-point of the class (74 - 75.9) is

(A) 74.50 (B) 74.90 (C) 74.95 (D) 75.00

8. Which one of the following is not correct -

(A) Statistics is liable to be misused

(B) The data collected by the investigator to be used by himself are called primary data

(C) Statistical laws are exact

(D) Statistics do not take into account of individual cases

9. If the first five elements of a se replaced by $(x_1 + 5)$, where i = 1,2,3,...^{5} and the next five elements are replaced by $(x_i - 5)$, where = 6 ..... 10 then the mean will change by

(A) 25 (B) 10 (C) 5 (D) 0

10. The following numbers are given 61, 62, 63, 61, 63, 64, 64, 60, 65, 63, 64, 65, 66, 64. The difference between their mean and median is

(A) 0.4 (B) 0.3 (C) 0.2 (D) 0.1

11. The value of $\sum_{i=1}^{n}(x_i - \bar{x})$ where $\bar{x}$ is the arithmetic mean of x_1 is

(A) 1 (B) $n\bar{x}$ (C) 0 (D) None of these

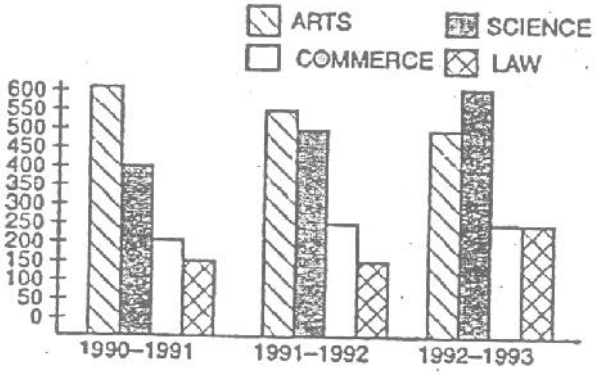
12. The average of 15 numbers is 18. The average of first 8 is 19 and that last 8 is 17, then the 8th number is

(A) 15 (B) 16 (C) 18 (D) 20

13. In an examination, 10 students scores the following marks in Mathematics 35, 19, 28, 32, 63, 02, 47, 31, 13, 98. It rage is

(A) 96 (B) 02 (C) 98 (D) 50

Direction : question 15 is based on the histogram given in the adjacent figure.



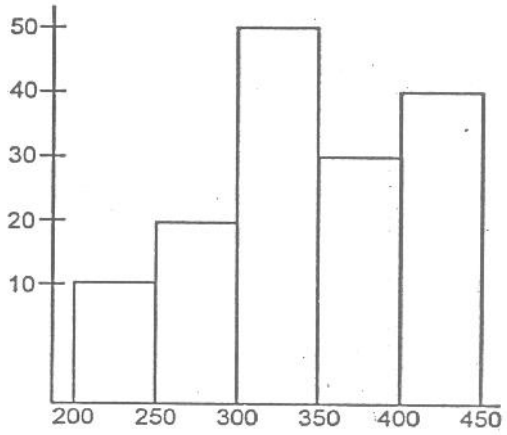
14. The percentage of students in science faculty in 1990-91 is :

(A) 26.9% (B) 27.8% (C) 29.6% (D) 30.2%

15. For the scores 8,6,10,12,1,5,6 and 6 the Arithmetic mean is

(A) 6.85 (B) 6.75 (C) 6.95 (D) 7

Direction : Each question from 16 to 18 is based on the histogram given in the adjacent figure.



16. What is the number of worker earning Rs. 300 to 350 ?

(A) 50 (B) 40 (C) 45 (D) 130

17. In which class interval of wages there is the least number of workers ?

(A) 400 - 450 (B) 350 - 400 (C) 250 - 300 (D) 200 - 250

18. What is the upper limit of the class-interval 200-250

(A) 200 (B) 250 (C) 225 (D) None of these

SUBJECTIVE 14.2

1. Find the mean of following data 13,17,16,14,11,13,10,16,11,18,.12,17.

2. Find the median of following data 38,70,48,34,42,55,63,46,54,44.

3. Find the mode of following data 2,2,6,5,4,3,4,5,7,9,4,5,3,1,10,4.

4. Find the median of :

(i) 5,30,15,6,18,22,26,32,6,9,18

(ii) 92,88,62,53,55,59,60,61,85,89

(iii) 66,69,108,72,78,82,98,99,102,101

5. Find the value of pm if the median of following observations is 48.

14, 17, 33, 35, p-5, p + 7, 57, 63, 69, 80. The above observation are in ascending order.]

6. Find the missing frequencies of the following distribution if it is known that mean of the distribution is 50.

x:	10	30	50	70	90	Total
f :	17	f_1	32	f_2	19	120

7. Find the mean for following data.

Age (Years)	25 – 30	30 – 35	35 – 40	40 – 45	45 – 50	50 – 55
No. of teachers	30	23	20	14	10	3

8. Calculate the mean of the following frequency distribution :

Marks	20-30	30-40	40-50	50-60	60-70	70-80	80-90
No. of Students	3	6	13	15	14	5	4

9. The mean of a certain group of observations is 78. Find the resulting mean, if the value of each observation is :

(i) increased by 2 (ii) decreased by 3 (iii) multiplied by 1.5

(iv) divided by 2 (v) increased by 30% (iv) diminished by 25%

10. Draw a histogram to represent the following data :

Class-Interval	40-60	60-80	80-100	100-120	120-140	140-160	160-180	180-200
Frequency	20	40	30	50	30	20	10	40

11. Draw a bar-graph to represent the following

A	B	C	D	E	F
60	70	55	40	90	50