DPP
DAILY PRACTICE PROBLEMS

**Class : XIth** **Subject : MATHS**
**Date :** **DPP No. : 6**

# Topic :- STATISTICS

1. 10 is the mean of a set of 7 observations and 5 is the mean of a set of 3 observations. The mean of the combined set is given by
   a) 15 b) 10 c) 8.5 d) 7.5
2. The AM. of a set of 50 numbers is 38. If two numbers of the set, namely 55 and 45 are discarded, the AM of the remaining set of numbers is
   a) 36 b) 36.5 c) 37.5 d) 38.5
3. The mode of the distribution is

| Marks | Number of Students |
|---|---|
| 4 | 6 |
| 5 | 7 |
| 6 | 10 |
| 7 | 8 |
| 8 | 3 |

   a) 5 b) 6 c) 8 d) 10
4. The AM of $n$ observations is$M$. If the sum of $(n-4)$ observations is $a$, then the mean of remains four observations is
   a) $\frac{nM-a}{4}$ b) $\frac{nM+a}{2}$ c) $\frac{nM-a}{2}$ d) $nM+a$
5. The mean deviation from the mean of the series a, $a+d$,$a+2\,d$,...,$a+2nd$, is
   a) $n(n+1)d$ b) $\frac{n(n+1)d}{2\,n+1}$ c) $\frac{n(n+1)d}{2\,n}$ d) $\frac{n(n-1)d}{2\,n+1}$
6. If the first item is increased by 1, second by 2 and so on, then the new mean is
   a) $\overline{X}+n$ b) $\overline{X}+\frac{n}{2}$ c) $\overline{X}+\frac{n+1}{2}$ d) None of these
7. If the mean of the set of numbers $x_1$,$x_2$,...$x_n$ is $\bar{x}$, then the mean of the numbers $x_i+2i$, $1 \le i \le n$ is
   a) $\bar{x}+2n$ b) $\bar{x}+2$ c) $\bar{x}+n+1$ d) $\bar{x}+n$
8. Standard deviation for first 10 natural number is
   a) 5.5 b) 3.87 c) 2.97 d) 2.87
9. The value of mean, median and mode coincides, then the distribution is
   a) Positive skewness b) Symmetrical distribution
   c) Negative skewness d) All of the above
10. The geometric mean of numbers $7,7^2,7^3,...7^n$, is
    a) $7^{7/4}$ b) $7^{4/7}$ c) $7^{\frac{n-1}{2}}$ d) $7^{\frac{n+1}{2}}$
11. In any discrete series (when all values are not same) the relationship between M.D. about mean and S.D. is
    a) M.D. = S.D. b) M.D. $\ge$ S.D. c) M.D $< S.D.$ d) M.D. $\le$ S.D.

12. The quartile deviation of daily wages of 7 persons which are Rs. 12, 7, 15, 10, 17, 17, 25 is

a) 14.5 b) 7 c) 9 d) 3.5

13. When the origin is changed, then the coefficient of correlation

a) Becomes zero b) Varies c) Remains fixed d) None of these

14. The standard deviation of the numbers 31, 32, 33,...., 46, 47 is

a) $\sqrt{\frac{17}{12}}$ b) $\sqrt{\frac{47^2-1}{12}}$ c) $2\sqrt{6}$ d) $4\sqrt{3}$

15. The one which is the measure of the central tendency is

a) Mode
b) Mean deviation
c) Standard deviation
d) Coefficient of correlation

16. The mean weight of 9 items is 15. If one more item is added to the series the mean becomes 16. The value of 10th items is

a) 35 b) 30 c) 25 d) 20

17. The median from the table is

| Value | 7 | 8 | 10 | 9 | 11 | 12 | 13 |
|---|---|---|---|---|---|---|---|
| Frequency | 2 | 1 | 4 | 5 | 6 | 1 | 3 |

a) 100 b) 10 c) 110 d) 1110

18. The AM of ${}^{2n+1}C_0$, ${}^{2n+1}C_1$, ${}^{2n+1}C_2$,..., ${}^{2n+1}C_n$ is

a) $\frac{2^n}{n}$ b) $\frac{2^n}{n+1}$ c) $\frac{2^{2n}}{n}$ d) $\frac{2^{2n}}{(n+1)}$

19. If both the regression lines intersect perpendicularly, then

a) $r<-1$ b) $r=-1$ c) $r=0$ d) $r=\frac{1}{2}$

20. For the arithmetic progression $a,(a+d),(a+2d),(a+3d),\ldots\ldots,(a+2nd)$, the mean deviation from mean is

a) $\frac{n(n+1)d}{2n-1}$ b) $\frac{n(n+1)d}{2n+1}$ c) $\frac{n(n-1)d}{2n+1}$ d) $\frac{(n+1)d}{2}$