**Half mark and one-mark questions**

1. When an observation in a data is abnormally more than or less than the remaining observations in the data. Does it affect the mean or median or mode? Why?
2. Write the formula to find the mean of ungrouped data, using assumed mean and explain each term?
3. The median of observations -2, 5, 3, -1, 4, 6 is 3.5. Is it correct?
4. Write the first 10 prime numbers and find their median?
5. Raju stated that the average of first 10 odd numbers is also 10. Do you agree with him? Justify your answer?
6. Find the median of first seven composite numbers?
7. Find the mode of the data 6, 8, 3, 6, 7, 4, 3, 6, 7, 6?
8. The average of 19, 5, 13, 7, x, 21 is x. Find ‘x’?
9. Ravi said, “Mode is always at the centre of the data”. Is it true? Justify?
10. If the mean and median of the data x1, x2, x3, x4, x5 are same? Then what can you say about the observations? (When it is possible?)
11. Find the median of the data?
12. If the median of the data (x > 0) is 8. Find the value of ‘x’?
13. Find the mean of first ‘n’ natural numbers?
14. Find the mean of the factors of 10?
15. The mean of 25 observations is 27. If each observation is decreased by 7, then find the mean of the new data?
16. If the mean of frequency distribution is 7.5 and ∑fi xi = 120 + 3k, ∑fi = 30, then find the value of k?
17. If the mean of first n natural numbers is 3n/5, then find the value of n?
18. To find the mean of ungrouped frequency distribution in assumed mean method, deviation = \_\_\_\_\_\_\_
19. For the following distribution

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Observation | 2 | 4 | 6 | 8 | 10 |
| Frequency | 10 | 15 | 12 | 20 | 9 |

What is the sum of median and mode of the above data?

1. If 35 is removed from the data, 30, 34, 35, 36, 37, 38, 39, 40 then find how much the median increased?
2. The median of the data 10, 12, 14, x – 3, x, x + 2, 25 (arranged in ascending order) is 15. Find ‘x’?
3. The median of set of 9 distinct observations is 20.5. If each of the largest 4 observations of the set is increased by 2, then find the median of the new set?
4. The mean of 10 observations is 12. And the mean of another 15 observations is 8. Then find the mean of all observations?
5. Find the sum of deviations of the observation 12, 25, 18, 21, 14 from their mean?
6. In a grouped data, the class intervals are given as 0 -10, 10 – 20, 20 – 30, 30 – 40, 40 – 50. Find the sum of class mark of the class 20 – 30 and lower boundary of the class 40 – 50?
7. The cumulative frequencies of two consecutive classes are 28 and 41. Find the frequency of the second class?
8. The mean of a data is 14. If each observation of the data is multiplied by 3 and added 1, then find the mean of new data?
9. The mean of a and b is 8.5 and mean of a, b, c is 7. Then find the value of ‘c’?

**Two marks questions**

1. The heights of six members of a family are given below in the table.

Find the mean height of the family members.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Height (in ft.) | 5 | 5.2 | 5.4 | 5.6 |
| Number of family members | 1 | 2 | 2 | 1 |

1. Write the less than cumulative frequency and greater than cumulative frequency to the following data?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Class interval | 5 - 10 | 10 - 15 | 15 - 20 | 20 - 25 | 25 – 30 |
| Frequency | 4 | 45 | 20 | 13 | 9 |

1. Calculate the mean of the following data?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Xi | 5 | 6 | 7 | 8 | 9 |
| Fi | 4 | 8 | 14 | 11 | 3 |

1. Write mark wise frequency to the following data?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Marks | 0 - 5 | Below 6 | Below 7 | Below 8 | Below 9 |
| No. of students | 4 | 12 | 21 | 35 | 40 |

1. Write any two difference between the central tendency values mean and median?
2. The average of 13 scores is 8. If one score 20 is deleted from them, find the average of the remaining scores?
3. The mean mark of 30 students is 42. Among them two got zero marks. Find the mean mark of remaining students?
4. If the mean of the observations x, x + 2, x + 4, x + 6 and x + 8 is 11. Find the value of ‘x’?
5. The mean of 5 numbers is 30. If one umber is excluded, their mean becomes 28. What is the excluded number?
6. How many distinct sets of three positive integers have a mean of 6, a median of 7 and no mode?
7. There are four unknown numbers. The mean of first two numbers is 4 and the mean of the first three numbers is 9. If the mean of all observations is 15 and one of them is 2, then find the remaining other numbers?
8. Median of data, arranged in ascending order 7, 10, 15, x, y, 27, 30 is 17 and when one more observation 50 is added to the data, the median has become 18. Find x and y?
9. Four integers are added to a group of integers 3, 4, 5, 5 and 8 and the mean, median and mode of the data increases by 1 each. What is the greatest integer in the new group of integers?
10. The mean weight of three students is 40kg. One of the students Sathish weighs 46kg. The other two students Santhosh and Shekhar have same weight. Find the weight of Shekhar?

**Four marks questions**

1. Represent the following data as ungrouped frequency distribution table.

A D E D C B A C D B E

C B D E A B C E C A D

E B E A B C A D E B C

1. Represent the following data as grouped frequency distribution table having the class interval 0 – 5?

12 22 6 17 13 21 2 8 24 22 10 19 24 9 3 15 19 16

13 16 4 21 18 23 12 7 10

1. Find the mean of the following data in deviation method?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Observation | 2 | 4 | 6 | 8 | 10 | 12 |
| Frequency | 4 | 6 | 8 | 10 | 7 | 5 |

1. Find the value of ‘k’ if the mean of the following data is 15.55

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Observation | 10 | 12 | 14 | 16 | 18 | 20 | 22 |
| Frequency | 4 | 5 | k | 10 | 7 | 4 | 2 |