
TOPIC: STATISTICS

1. Construct a grouped frequency table with class intervals 0 – 5, 5 – 10 and so on for the following Marks obtained in math's (out of 50) by a group of students in an examination:

0, 5, 6, 7, 10, 12, 14, 15, 20, 22, 25, 26, 27, 8, 11, 17, 3, 6, 9, 17, 19, 21, 22, 29, 31, 35, 37, 40, 42, 45, 49, 4, 50, 16, and 20

- i) What is the range of the data? ii) which group contains the maximum number of students
 iii) Determine the class size iv) Construct a cumulative frequency table
2. The mean of 96, 98, x, 102, 104 is 100, find x (100)

3. Find the mean of the following distribution:

x	10	30	50	70	89
f	7	8	10	15	10

(55)

4. Find the mean of x, x + 2, x + 4, x + 6 and x + 8 (x + 4)
 5. Find the mean of prime numbers between 20 and 30 (26)
 6. Find the median of the following data: 41, 43, 127, 99, 61, 92, 71, 58, and 57. If 58 is replaced 85, what will be the new median. (61, 71)
 7. Find the median of first ten multiples of 5 (27.5)
 8. The following observations have been arranged in ascending order. If the median of the data is 63 find the value of x. 29, 32, 48, 50, x, x+2, 72, 78, 84, 95 (62)
 9. Find the class mark of class 150 - 160 (155)
 10. The marks obtained by students in unit test of mathematics are given below .Represent the Data by histogram.

Marks	0 – 10	10 – 30	30 – 45	45 – 50
Number of students	8	32	18	10

11. The mean of 5 numbers is 18. If one number is excluded, then mean is 16. Find the excluded Number (26)
 12. The mean of 10 numbers is 20. If 5 is subtracted from every number what will be the new mean (15)
 13. If the mean of 10 observations is 20 and that of another 15 observation is 16. Find the mean of all the 25 observation. (17.6)
 14. Determine the median of 24, 23, a, a-1, 12, 16, where a is the mean of 10, 20, 30, 40, 50. (23.5)
 15. If the mean of 5 observations x, x+2, x+4, x+6, x+8 is 11. Find the mean of first 3 observations
 16. If mean = 20.2, find p (p = 20)

x	10	15	20	25	30
f	6	8	p	10	6

17. Draw a histogram and a frequency polygon from the following data

Class	21 – 25	26 – 30	31 – 35	36 – 40	41 – 45	46 – 50	51 – 55	56 – 60
Frequency	21	22	50	110	87	51	18	23

18. Draw a frequency polygon for the following data

Class	25 – 35	35 – 45	45 – 55	55 – 65	65 – 75	75 – 85
Frequency	5	10	15	20	12	8

19. The mean of first 8 observations is 18 and last 8 observations is 20. If the mean of all 15 observations is 19, find the 8th observation
 20. The mean of 5 observations was calculated as 145, but it was later on deducted that one observation was misread as 45 in place of 25. Find the correct mean of the observations (141)
 21. The class marks of a distribution are given below:
 8, 14, 20, 26, 32, 38, 44, 50. Find the class size and class interval

- 22) Class mark of class interval 60 – 70 is
a) 60 b) 70 c) 65 d) 75
- 23) The upper class limit of class interval 35 – 45 is equal to
a) 35 b) 40 c) 45 d) 10
- 24) If the mean of the data 6, 8, 10, 3, 7 and m is 7 then the value of m is
a) 10 b) 12 c) 8 d) 9
- 25) The mean of first five even natural numbers is
a) 10 b) 15 c) 30 d) 6
- 26) The mode of the data 4, 4, 8, 10, 15, 20, 8, 17 and x is 4, then the value of x is
a) 4 b) 8 c) 20 d) 15
- 27) The mean of first five whole numbers is
a) 2 b) 3 c) 3.5 d) 2.5
- 28) Histogram is prepared in which series.
a) Individual b) Discrete c) Continuous d) None of these
- 29) The range of the data:
25, 18, 20, 22, 16, 6, 17, 15, 12, 30, 32, 10, 19, 8, 11, 20 is
a) 10 b) 15 c) 18 d) 26
- 30) The median of the first five composite numbers
a) 5 b) 8 c) 7.4 d) none of these