1. For a frequency distribution, mean, median and mode are connected by the relation
   (a) mode = 3mean – 2median   (b) mode = 2median – 3mean
   (c) mode = 3median – 2mean   (d) mode = 3median + 2mean

2. Which measure of central tendency is given by the x – coordinate of the point of intersection of the more than ogive and less than ogive?
   (a) mode   (b) median   (c) mean   (d) all the above three measures

3. The class mark of a class interval is
   (a) upper limit + lower limit   (b) upper limit – lower limit
   (c) $\frac{1}{2}$ (upper limit + lower limit)   (d) $\frac{1}{2}$ (upper limit – lower limit)

4. Construction of cumulative frequency table is useful in determining the
   (a) mode   (b) median   (c) mean   (d) all the above three measures

5. For the following distribution

Marks	Number of students
Below 10	3
Below 20	12
Below 30	27
Below 40	57
Below 50	75
Below 60	80

   the modal class is
   (a) 10 – 20   (b) 20 – 30   (c) 30 – 40   (d) 40 – 50

6. For the following distribution

Marks	Number of students
Below 10	3
Below 20	12
Below 30	27
Below 40	57
Below 50	75
Below 60	80

   the median class is
   (a) 10 – 20   (b) 20 – 30   (c) 30 – 40   (d) 40 – 50

7. In a continuous frequency distribution, the median of the data is 24. If each item is increased by 2, then the new median will be
   (a) 24   (b) 26   (c) 12   (d) 48

8. In a grouped frequency distribution, the mid values of the classes are used to measure which of the following central tendency?
   (a) mode   (b) median   (c) mean   (d) all the above three measures

9. Which of the following is not a measure of central tendency of a statistical data?
   (a) mode   (b) median   (c) mean   (d) range

10. Weights of 40 eggs were recorded as given below:

Weights(in gms)	85 – 89	90 – 94	95 – 99	100 – 104	105- 109
No. of eggs	10	12	12	4	2

    The lower limit of the median class is
    (a) 90   (b) 95   (c) 94.5   (d) 89.5

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MATHEMATICS
10TH CBSE

1. The median class of the following distribution is

C.I	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60
F	8	10	12	22	30	18

   (a) 10 – 20   (b) 20 – 30   (c) 30 – 40   (d) 40 – 50

2. Weights of 40 eggs were recorded as given below:

Weights(in gms)	85 – 89	90 – 94	95 – 99	100 – 104	105- 109
No. of eggs	10	12	15	4	2

   The lower limit of the modal class is
   (a) 90   (b) 95   (c) 94.5   (d) 89.5

3. The arithmetic mean of 12 observations is 7.5. If the arithmetic mean of 7 of these observations is 6.5, the mean of the remaining observations is
   (a) 5.5   (b) 8.5   (c) 8.9   (d) 9.2

4. In a continuous frequency distribution, the mean of the data is 25. If each item is increased by 5, then the new median will be
   (a) 25   (b) 30   (c) 20   (d) none of these

5. In a continuous frequency distribution with usual notations, if $l = 32.5$, $f_1 = 15$, $f_0 = 12$, $f_2 = 8$ and $h = 8$, then the mode of the data is
   (a) 32.5   (b) 33.5   (c) 33.9   (d) 34.9

6. The arithmetic mean of the following frequency distribution is 25, then the value of p is

C.I	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50
F	5	18	15	p	6

   (a) 12   (b) 16   (c) 18   (d) 20

7. If the mean of the following frequency distribution is 54, then the value of p is

C.I	0 – 20	20 – 40	40 – 60	60 – 80	80 –100
F	7	p	10	9	13

   (a) 12   (b) 16   (c) 18   (d) 11

8. The mean of the following frequency distribution is

C.I	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50
F	12	16	6	7	9

   (a) 12   (b) 16   (c) 22   (d) 20

9. The mean of the following frequency distribution is

| C.I	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50
F	7	8	12	13	10

   (a) 12.2   (b) 16.2   (c) 22.2   (d) 27.2

10. The median of the following frequency distribution is

C.I	100 – 150	150 – 200	200 – 250	250 – 300	300 – 350
F	6	3	5	20	10

   (a) 120   (b) 160   (c) 220   (d) 270

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10TH CBSE

1. The range of the data 14, 27, 29, 61, 45, 15, 9, 18 is
   (a) 61　　　　(b) 52　　　　(c) 47　　　　(d) 53

2. The class mark of the class 120 – 150 is
   (a) 120　　　(b) 130　　　(c) 135　　　(d) 150

3. The class mark of a class is 10 and its class width is 6. The lower limit of the class is
   (a) 5　　　　(b) 7　　　　(c) 8　　　　(d) 10

4. In a frequency distribution, the class width is 4 and the lower limit of first class is 10. If there are six classes, the upper limit of last class is
   (a) 22　　　(b) 26　　　(c) 30　　　(d) 34

5. The class marks of a distribution are 15, 20, 25,……45. The class corresponding to 45 is
   (a) 12.5 – 17.5　　(b) 22.5 – 27.5　　(c) 42.5 – 47.5　　(d) none of these

6. The number of students in which two classes are equal.
   (a) VI and VIII　　(b) VI and VII　　(c) VII and VIII　　(d) none of these
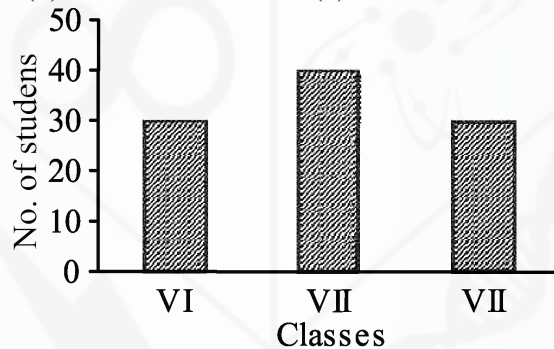
7. The mean of first five prime numbers is
   (a) 5.0　　　(b) 4.5　　　(c) 5.6　　　(d) 6.5

8. The mean of first ten multiples of 7 is
   (a) 35.0　　(b) 36.5　　(c) 38.5　　(d) 39.2

9. The mean of x + 3, x – 2, x + 5, x + 7 and x + 72 is
   (a) x + 5　　(b) x + 2　　(c) x + 3　　(d) x + 7

10. If the mean of n observations x_1, x_2, x_3,……x_n is $\bar{x}$ then $\sum_{i=1}^{n} x_i - \bar{x}$ is
    (a) 1　　　(b) –1　　　(c) 0　　　(d) cannot be found

11. The mean of 10 observations is 42. If each observation in the data is decreased by 12, the new mean of the data is
    (a) 12　　　(b) 15　　　(c) 30　　　(d) 54

12. The median of 10, 12, 14, 16, 18, 20 is
    (a) 12　　　(b) 14　　　(c) 15　　　(d) 16

13. If the median of 12, 13, 16, x + 2, x + 4, 28, 30, 32 is 23, when x + 2, x + 4 lie between 16 and 30, then the value of x is

    (a) 18   (b) 19   (c) 20   (d) 22

14. If the mode of 12, 16, 19, 16, x, 12, 16, 19, 12 is 16, then the value of x is

    (a) 12   (b) 16   (c) 19   (d) 18

15. The mean of the following data is

x	5	10	15	20	25
f	3	5	8	3	1

    (a) 12   (b) 13   (c) 13.5   (d) 13.6

16. The mean of 10 numbers is 15 and that of another 20 number is 24 then the mean of all 30 observations is

    (a) 20   (b) 15   (c) 21   (d) 24

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10ᵀᴴCBSE

1. Construction of cumulative frequency table is useful in determining the
   (a) mean   (b) median   (c) mode   (d) all three

2. In the formula $\bar{x} = a + \dfrac{\sum f_i d_i}{\sum f_i}$, finding the mean of the grouped data, d_i's are deviations from assumed mean 'a' of
   (a) lower limits of classes   (b) upper limits of classes
   (c) class marks   (d) frequencies of the classes.

3. If x_i's are the midpoints of the class intervals of grouped data, f_i's are the corresponding frequencies and x is the mean, then $\sum f_i(x_i - \bar{x})$ is equal to
   (a) 0   (b) –1   (c) 1   (d) 2

4. In the formula $\bar{x} = a + \left(\dfrac{\sum f_i u_i}{\sum f_i} \times h \right)$, finding the mean of the grouped data, $u_i =$
   (a) $\dfrac{x_i + a}{h}$ (b) $\dfrac{x_i - a}{h}$ (c) $\dfrac{a - x_i}{h}$ (d) $h(x_i - a)$

5. For the following distribution:

Class	0-5	5-10	10-15	15-20	20-25
Frequency	10	15	12	20	9

   The sum of lower limits of the median class and the modal class is
   (a) 15   (b) 25   (c) 30   (d) 35

6. Consider the following frequency distribution:

Class	0-9	10-19	20-29	30-39	40-49
Frequency	13	10	15	8	11

   The upper limit of the median class is
   (a) 29   (b) 29.5   (c) 30   (d) 19.5

7. The abscissa of the point of intersection of the less than type and of the more than type ogives gives its
   (a) mean   (b) median   (c) mode   (d) all three

8. For the following distribution: the modal class is

Marks	Below 10	Below 20	Below 30	Below 40	Below 50
No. of Students	8	17	32	62	80

   (a) 10 – 20   (b) 20 – 30   (c) 30 – 40   (d) 40 – 50

9. From the following data of the marks obtained by students of class X

Marks	0-10	10-20	20-30	30-40	40-50	50-60
No. of Students	8	12	20	30	10	10

   How many students, secured less than 40 marks?
   (a) 70   (b) 40   (c) 80   (d) 30

10. The times in seconds taken by 150 athletics to run a 100m hurdle race are given as under:

Class	12.7-13	13-13.3	13.3-13.6	13.6-13.9	13.9-13.12
Frequency	5	6	10	55	41

The number of athletes who completed the race in less than 13.9 sec is

    (a) 21   (b) 55   (c) 41   (d) 76

11. Consider the data:

Class	25-45	45-65	65-85	85-105	105-125	125-145
Frequency	4	5	12	20	14	11

The difference of the upper limit of the median class and the lower limit of the modal class is

    (a) 0   (b) 19   (c) 20   (d) 38

12. Consider the following distribution:

Marks	Above 0	Above 10	Above 20	Above 30	Above 40	Above 50
No. of Students	63	58	55	51	48	42

The frequency of the class 30 – 40 is

    (a) 3   (b) 4   (c) 48   (d) 41