1. In a class of 50 students, 10 have failed and their average marks are 28. The total marks obtained by the entire class are 2800. The average marks of those who have passed, are

    (1) 43   (2) 53
    (3) 63   (4) 70

2. In ten observations, the mean of all 10 numbers is 15, the mean of the first six observations is 16 and the mean of the last five observations is 12. The sixth number is

    (1) 6   (2) 9
    (3) 12   (4) 3

3. A group of 10 items has arithmetic mean 6. If the arithmetic mean of 4 of these items is 7.5, then the mean of the remaining items is

    (1) 6.5   (2) 5.5
    (3) 4.5   (4) 5.0

4. If the data $x_1, x_2, \ldots x_{10}$ is such that the mean of first four of these is 11, the mean of the remaining six is 16 and the sum of squares of all of these is 2000, then the standard deviation of this data is:

    (1) $2\sqrt{2}$ (2) 4
    (3) 2   (4) $\sqrt{2}$

5. The mode of the data $8, 11, \ 9, \ 8, \ 11, \ 9, \ 7, \ 8, \ 7, \ 3, \ 2$ is

    (1) 11   (2) 9
    (3) 8   (4) 3

6. The mean of five numbers is 0 and their variance is 2 . If three of those numbers are $-1, 1$ and 2, then the other two numbers are

    (1) -5 and 3   (2) -4 and 2
    (3) -3 and 1   (4) -2 and 0

7. The mean of the numbers $a, \ b, \ 8, \ 5, \ 10$ is 6 and the variance is 6.80. Then, which one of the following is a possible value of a and b?

    (1) $a = 5, \ b = 2$ (2) $a = 1, \ b = 6$
    (3) $a = 3, \ b = 4$ (4) $a = 0, \ b = 7$

8. The marks of some students were listed out of 75. The standard deviation of marks was found to be 9. Subsequently, the marks were raised to a maximum of 100 and variance of new marks was calculated. The new variance is

    (1) 81   (2) 122
    (3) 144   (4) None of these

9. The mean of observations is 4.4 and the variance is 8.24. If three of the five observations are 1, 2 and 6 find the other two observations.

    (1) 9, 4   (2) 2, 11
    (3) 7, 6   (4) 5, 8

10. If the difference between mean and mode is 63, the difference between mean and median is

    (1) 189   (2) 21
    (3) 31.5 (4) 48.5