Q. All the students of a class performed poorly in Mathematics. The teacher decided to give grace marks of 10 to each of the students. Which of the following statistical measures will not change even after the grace marks were given? (1) mean (2) median (3) mode

(4) variance

[JEE-MAINS-2013]

Ans- Variance(it is independent of change of origin)

1 AIEEE 2004 MCQ (Single Correct Answer)
Consider the following statements:
(a) Mode can be computed from histogram
(b) Median is not independent of change of scale
(c) Variance is independent of change of origin and scale.
Which of these is/are correct?
(A) only (a)
B only (b)
only (a) and (b)
D (a), (b) and (c)
Explanation
(a) is true as mode can be computed from histogram
(b) is true as median will be changed if data's are changed
(c) is false as variance depends on change of scale and independent of change of origin.