1) **Given following table**

Data Percentile

16.8 43th percentile

17.1 49th percentile

17.3 52th percentile

17.8 55th percentile

18.2 60th percentile

Find the median of the above observation?

Solution: Observe what is given in the problem.

16.8, 17.1, 17.3, 17.8, 18.2 are the values of their corresponding percentiles 43, 49, 52, 55, 60.

Here N, L are all unknown. If either N or L is known to us we can find out the median of the given observations where median = 50^{th} percentile.

But on a rough estimation the median falls in the range (17.1, 17.3),since median = 50^{th} percentile.

2)

In a distribution of 8500 parameters, if 26.7 is 56 percentile & 37.1 is 78 percentile, then what is the percentile of x (26.7 < =x < =37), that is closest in this range?

A. 1888

B. 4750

C. 6650

& so on...

Solution: The Formula given is (L/N)*100 = P

Here N= 8500,

When P = 56, find L?

Therefore L_1 = (P*N)/100

= (8500 * 56)/100

= 4760

when P = 78,

L_2 = 85*78 = 6630

Therefore for the values of x that lies in the range (26.7 < =x < =37), check with the other options also (ie choices D & E)

Find which choice lies close to the range.