The mean of the data set comprising of 16 observations is 16. If one of the observation valued 16 is deleted and three new observations valued 3, 4 and 5 are added to the data, then the mean of the resultant data, is :

(1) 15.8

(2) 14.0 ✓

(3) 16.8

(4) 16.0

$$\frac{x_1 + x_2 + \cdots + x_{15} + 16}{16} = 16$$

$$\frac{x_1 + x_2 + \cdots + x_{15} + 3 + 4 + 5}{18} = ??$$

$$\Rightarrow \quad \frac{(16 \times 16) - 16 + 3 + 4 + 5}{18} = \frac{252}{18} = 14$$

Correct option is (2)