

Q.35. The Pass out Result of 50 Students who took up a class test is given below:

Marks :	4	5	6	7	8	9
no of Students :	8	10	9	6	7	3

If the average marks were all the 50 students were 5.16, Find out the average marks of the Students who failed

F	x	Fx
8	4	32
10	5	50
9	6	54
6	7	42
7	8	56
3	9	27

$$\bar{x}_1 = \frac{237}{40} = 5.925$$

$$\frac{\Sigma Fx}{N_1}$$

$$\Sigma Fx = 237$$

$$M_1 = 5.925$$

$$N_1 = 40$$

$$N_2 = 50 - 40 = 10$$

$$M_2 = ?$$

$$M = 5.16$$

$$\bar{M} = \frac{(M_1 N_1) + (M_2 N_2)}{N_1 + N_2}$$

$$5.16 = \frac{(5.925 \times 40) + (M_2 \times 10)}{40 + 10}$$

$$5.16 = \frac{237 + 10M_2}{50}$$

$$237 + 10M_2 = 258$$

$$10M_2 = 258 - 237$$

$$M_2 = \frac{21}{10}$$

$$= 2.1 \text{ Ans.}$$

36. Find the value of A if $\sum_{i=1}^5 (X_i - A) = 19$ and $\bar{x} = 17$

$$n = 5, \bar{x} = \frac{\sum X}{n}$$

$$17 = \frac{\sum X}{5}$$

$$\sum X = 85 \text{ --- (i)}$$

$$\sum_{i=1}^5 (X_i - A) = 19$$

Q.42 From the following data calculate weighted arithmetic mean.

X	W	X · W
76	3	228
74	6	444
81	2	162
70	3	210
88	7	516

$$\sum W = 21 \quad \sum X \cdot W = 1660$$

$$\bar{X}_w = \frac{\sum X \cdot W}{\sum W}$$

$$= \frac{1660}{21}$$

$$= \frac{237.142}{3}$$

$$= 79.047$$

$$= 79.05 \text{ Ans.}$$