Assignment – 1

Q1 find the mean of the following:

a.

range	f	x	fx
1-10	2	5.5	11
11-20	7	15.5	108.5
21-30	10	25.5	255
31-40	3	35.5	106.5
41-50	1	45.5	45.5
	23		526.5

$$\bar{x} = \frac{\Sigma fx}{\Sigma f} = \frac{526.5}{23} = 22.89$$

b.

range	f	x	fx
0-10	2	5	10
10-20	7	15	105
20-30	15	25	375
30-40	10	35	350
50-60	11	45	495
40-50	5	55	275
	50		1610

$$\bar{x} = \frac{\Sigma fx}{\Sigma f} = \frac{1610}{50} = 32.2$$

Page No.
Date

C.

Exam Score	No. of Student	X	fx
51 - 60	4	55.5	222
61 - 70	8	65.5	524
71 - 80	15	75.5	1132.5
81 - 90	8	85.5	684
91 - 100	5	95.5	477.5
	40		3040

$$\bar{x} = \frac{\Sigma fx}{\Sigma f} = \frac{3040}{40} = 76$$

Q2 Find the means for entire group of workers for the following data.

Group	mean wages	No. of workers	Total wages
Group 1	75	1000	75,000
Group 2	60	1500	90,000
		2500	165,000

$$\bar{x}_{12} = \frac{\bar{x}_1 N_1 + \bar{x}_2 N_2}{N_1 + N_2} = \frac{75 \times 1000 + 60 + 1500}{1000 + 1500} = \frac{75000 + 90000}{2500}$$

$$= \frac{165000}{2500} = 66$$

Q3. Compute mean for entire group.

Medical examination	No. examined	mean weight (pounds)	Total weight (pounds)
A	50	113	5650
B	60	120	7200
C	90	115	10350
	200		23200

$$\bar{x}_{123} = \frac{n_1 N_1 + n_2 N_2 + n_3 N_3}{N_1 + N_2 + N_3} = \frac{113 \times 50 + 120 \times 60 + 115 \times 90}{50 + 60 + 90}$$

$$= \frac{5650 + 7200 + 10350}{200} = \frac{23200}{200} = 116$$