# National Institute of Open Schooling Secondary- Economics(214) <br> Lesson 18: Analysis of Data <br> Worksheet- 18 

1. "Average of a data provides a single value to represent Information so that raw data can be quickly grasped." Describe various functions and purpose of averages in the light of the statement.
2. "Measures of central tendency help to analyse statistical data for drawing conclusion". Elaborate the statement with suitable examples.
3. Following marks have been secured by 15 students out of 50 in a mathematics class test. Calculate arithmetic mean for the following data by direct method:-

X : 21,25,13,31,38,17,49,35,05,29,37,19,41,27,01
X : Marks
4. Refer Q3, and calculate the arithmetic mean for above data by shortcut method.
5. Write the formula for arithmetic mean of grouped data for direct method, shortcut method and step deviation method.
6. Find the arithmetic mean of the following data by direct and shortcut method.

| x | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| f | 5 | 9 | 13 | 21 | 20 | 15 | 8 | 3 |

7. Calculate arithmetic mean of following data using step-deviation method-:

| x | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| f | 2 | 7 | 15 | 10 | 6 | 3 | 5 | 8 | 4 |

8. Calculate missing frequency using direct method, if Arithmetic Mean is 33 .

| Loss per shop | No. of Shops |
| :--- | :--- |
| $0-10$ | 10 |
| $10-20$ | 15 |
| $20-30$ | 30 |
| $30-40$ | - |
| $40-50$ | 25 |
| $50-60$ | 20 |

9. Calculate arithmetic mean from following data using Shortcut method:-

| Class | Frequency |
| :--- | :--- |
| $20-25$ | 10 |
| $25-30$ | 12 |
| $30-35$ | 8 |
| $35-40$ | 20 |
| $40-45$ | 11 |
| $45-50$ | 4 |
| $50-55$ | 5 |

10. Refer the data given in Q9 and calculate arithmetic mean using step deviation method.
