INDIAN SCHOOL NIZWA - WORKSHEET

MATHEMATICS

CH:5 Measures of Central Tendency

Name: _____ Date: _____ Class: XIB

1. Define "Mean" and write its formula for a simple series.

2. Find the arithmetic mean of the following data:

x	10	20	30	40	50
f	5	8	10	7	5

3. Write the formula for calculating the median in a continuous series.

4. State two merits of the arithmetic mean.

5. Define "mode". How is it calculated in a continuous series?

6. Find the median for the data below:

Class	0-10	10-20	20-30	30-40	40-50
Frequency	5	8	12	7	3

7. Compute the mode for the following frequency distribution:

Class	0-10	10-20	20-30	30-40	40-50
Frequency	4	7	15	10	4

8. The mean monthly income of 5 workers is ₹12,000. Four workers earn ₹10,000, ₹12,000, ₹11,000, and ₹13,000 respectively. Find the income of the fifth worker.

9. The following table gives the marks obtained by students. Find the mean marks using the step-deviation method.

Marks	0-10	10-20	20-30	30-40	40-50
Frequency	5	8	15	12	10

10. Calculate mean, median, and mode for the following data and compare them.

Class	0-10	10-20	20-30	30-40	40-50	50-60
Frequency	5	9	12	7	5	2

11. The following table shows the monthly wages of workers in a factory. Find the median wage.

Wages in Rupees	100-200	200-300	300-400	400-500	500-600	600-700
No. of workers	8	10	20	25	15	12

12. Compute the mode using the empirical relationship:
Mode = 3 × Median − 2 × Mean
Given: Mean = 50, Median = 55.

13. The following data represent the daily income (in ₹) of 50 households. Calculate the mean income using the assumed mean method.

Daily income	0-100	100-200	200-300	300-400	400-500	500-600
No. of Households	5	8	12	15	7	3

The following table shows the cumulative frequency distribution of marks obtained by 50 students in a test.

14. Find the median marks

Marks	Less than 10	Less than 20	Less than 30	Less than 40	Less than 50	Less than 60	Less than 70	Less than 80
No. of students	5	12	20	30	38	44	48	50

15. The following table shows the **"More than type" cumulative frequency distribution** of the **marks obtained by 100 students** in an economics test.

Marks	More than 0	More than 10	More than 20	More than 30	More than 40	More than 50	More than 60
No. of Students	100	95	85	70	55	40	25