INDIAN SCHOOL AL WADI AL KABIR

Class: XI	Department: Commerce
WORKSHEET: 1	Topic: Measures of Central Tendency

1. Which average is affected most by the presence of extreme items?
   a. Median
   b. Mode
   c. Arithmetic Mean
   d. Geometric Mean

2. Comment whether the following statements are true or false.
   a. The sum of deviation of items from median is zero.
   b. An average alone is not enough to compare series.
   c. Arithmetic mean is a positional value.
   d. Median is unduly affected by extreme observations.

3. ------ is the most commonly used measures of central tendency.
   a. Mean
   b. Mode
   c. Quartile
   d. Median

4. The sum of deviations of items about arithmetic mean is always equal to ------
   a. One
   b. Zero
   c. Infinity
   d. None of these

5. The ------- is the middle element when the data set is arranged in order of the magnitude.
   a. Mean
   b. Median
   c. Quartile
   d. Mode

6. The most suitable average for qualitative measurement is
   b. Arithmetic mean
   c. Median
   d. Mode
   e.Quartile

7. Median divides the series into how many parts:
   a. 2
   b. 3
   c. 4

d.None of these

8. For a symmetrical distribution, median = 30 and mode = 35. What is the value of the mode?
   a.0
   b.30
   c.32.5
   d.27.5

9. Median is unaffected if the size of the largest value increases. True / False? Give reason.

10. Which of the following diagrams is used to find the value of mode graphically?
   a. Pie chart
   b. Bar graph
   c. Histogram
   d. None of the above

11. Read the following statements; Choose one of the correct alternatives
   Statement 1: Mode is useful for both quantitative and qualitative data
   Statement 2: Mean is used for quantitative data only.
   a) Statement 1 is true and statement 2 is false
   b) Statement 1 is false and statement 2 is true
   c) Both statements 1 and 2 are true
   d) Both statements 1 and 2 are true

12 Read the following statements; Choose one of the correct alternatives
Assertion(A): Median is graphically located through ogive.
Reason (R): Median is an arithmetic average
a) Both assertion and reason are true and reason is the correct explanation of assertion.
b) Both assertion and reason are true and reason is not the correct explanation of assertion.
c) Assertion is true and reason is false.
d) Assertion is false and reason is true.

NUMERICAL EXAMPLE:

1. Daily income of 10 families is given as follows:

S. No.	1	2	3	4	5	6	7	8	9	10
Daily Income (in â,¹)	100	120	80	85	95	130	200	250	225	275

Calculate average daily income
(Ans: Rs 156)

2. Find mean for the following data by using:
(i) Direct Method: (ii) Short-cut Method; (iii) Step Deviation Method.

X	100−200	200−300	300−400	400−500	500−600
f	10	18	12	20	40

(Ans: 412)

3.Find average for following individual data.

2	3	5	6	8	10	11	13	17	20

Calculating the average using direct method:
(Ans: 9.5)

4. Compute the mean marks obtained by the students from the following data:

Marks	0–10	10–20	20–30	30–40	40–50
No. of Students	4	6	10	20	10

(Ans:30.2)

CASE STUDY:

Read the following case study paragraph carefully and answer the questions on the basis of the same.

Measures of central tendency are an effective statistical tool, which are widely used for different purposes. Two statistical series are given below, observe them carefully and answer the questions that follow.

Series 1	2	8	6	4	10	15
Series 2	Marks	5-10	10-20	20-45	45-60	
	No. of Student	02	03	01	06	

1. What will be the median value of series 1?
(a) 6
(b) 8
(c) 10
(d) None of these

2. Mode value of series 2 will be equal to….
(a) 12
(b) 16
(c) 28
(d) Can't be determined

3. Which of the following methods should be used to calculate mode in series 1?
(a) Observation method
(b) Grouping table method
(c) Empirical relation between central tendencies
(d) Can't be determined

4. What will be the mode value in series 1?
(a) 6
(b) 8
(c) 10
(d) None of the above