INDIAN SCHOOL AL WADI AL KABIR

Class: XI	Department: Commerce
Worksheet:	Topic: Statistics – Organisation of Data

MCQs

1. Raw data is made comprehensible by :
   a) collection of data
   b) classification of data
   c) organization of data
   d) presentation of data

2. Classification of the population of India in terms of years is an example of :
   a) Geographical classification
   b) Chronological classification
   c) Quantitative classification
   d) Qualitative classification

3. The data classified with reference to countries is called :
   a. spatial
   b. chronological
   c. both
   d. none

4. The characteristics of a fact that can be used in the form of numbers is called:
   a. Frequency
   b. Variable
   c. Attribute
   d. None of the above

5. The frequency distribution of two variables is known as:
   a. Univariate distribution
   b. Bivariate distribution
   c. Multivariate distribution
   d. None of the above.

6. The unclassified data which are highly disorganized are called ………….. (Raw data)

7. To draw meaningful conclusions from raw data is a tedious task because:
   a. They are highly disorganized
   b. They are often very large and cumbersome to handle.
   c. They do not yield to statistical methods easily
   d. All of the above.

8. The class mid-point is equal to:
   a. the average of the upper-class limit and the lower-class limit
   b. the product of the upper-class limit and the lower-class limit
   c. the ratio of the upper-class limit and the lower-class limit
   d. None of the above

9. Under exclusive method,
   a. the upper-class limit of a class is excluded in the class interval
   b. the upper-class limit of a class is included in the class interval

    c. the lower class limit of a class is excluded in the class interval
    d. the lower class limit of a class is included in the class interval

10. Range is the:
    a. difference between the largest and the smallest observations
    b. difference between the smallest and the largest observations
    c. average of the largest and the smallest observations
    d. ratio of the largest to the smallest observation

11. Observe the series given, 0-10, 10-15,15-30, 30-50. Identify the type of series in the given example.
    a. Exclusive and open-ended
    b. Exclusive and unequal
    c. Inclusive and open-ended
    d. Inclusive and unequal

12. A variable like the 'number of students in a class' is a -------- variable.

13. ------- is a graphic or diagrammatic representation of a frequency distribution.

14. Both the upper and the lower-class limits are included in the ……… method of class intervals.

15. A ……… can be defined as the frequency distribution of two variables.

Assertion and Reasoning Questions:

Alternatives:
a. Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of Assertion (A)
b. Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of Assertion (A)
c. Assertion (A) is true, but Reason (R) is false.
d. Assertion (A) is false, but Reason (R) is true.

1. Assertion (A): In the case of exclusive class intervals, the upper limit is not included
   Reason (R): In the case of exclusive class intervals, we have to decide in advance which class limit is to be excluded.

2. Assertion (A): Classification brings order to raw data.
   Reason (R): Classification should be formed in such a way that the class mark of each class comes as close as possible, to a value around which the observations in a class tend to concentrate.

3. Assertion (A): A discrete variable can not take a fractional value.
   Reason (R): A discrete variable can also take fractional values.

Statement Based Question
Alternatives:
(a)Both the statements are true
(b) Both the statement are false
(c) Statement 1 is true and Statement 2 is false
(d)Statement 2 is true and Statement 1 is false

1. (i) Statement 1:A mass of data in its crude form is called raw data.
   (ii) Statement2:Quality of data involves less than one characteristic, it is called manifold classification.

2. (i) Statement 1: The upper limit of one class interval is the lower limit of the next class interval is called inclusive series.
   (ii) Statement 2:Exclusive series is that series is the series which includes all items up to its upper limit.

CASE STUDY-BASED QUESTIONS

Case 1:
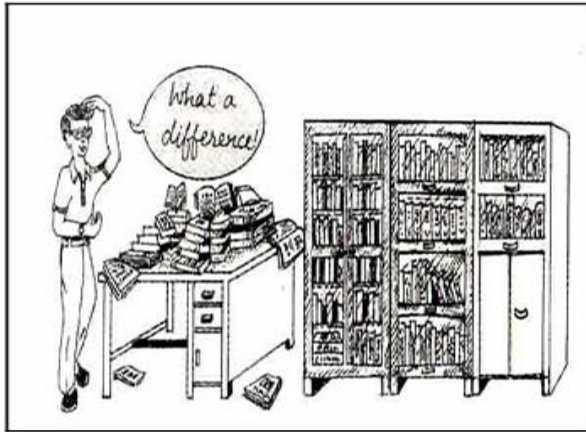
Source: Statistics for Economics, NCERT Textbook.

Some sample questions for discussion based on the given case;

1. What does the above picture show?

2. Which picture does show organised data?

3. Which data do you like and why?

Case 2:

"The main objective of organization of data is to arrange the data in such a form that it becomes fairly easy to compare and analyze. Generally, we can do this by distributing data into various classes on the basis of some attributes or characteristics. This distribution of data into classes is the classification of data. Further, each division of data is a class. All in all, through the process of classification we can group and divide data into classes according to general attributes, which facilitates comparison and analysis."

Answer the following questions.

1. An attribute is:
   a) A Qualitative characteristic
   b)A measurable characteristic
   c)A Quantitative characteristic
   d)All of these

2. Classes with Zero frequencies is called _____. (Empty Class)

3. What are the two types of class intervals?
   1. ------------------------------------ 2. ----------------------------------

4.When the data is classified according to geographic location or region, it is known as-_____.

Numericals:

1. Prepare a frequency distribution by inclusive method taking class interval of 7 from the following data.

28	17	15	22	29	21	23	27	18	12	7	2	9	4
1	8	3	10	5	20	16	12	8	4	33	27	21	15
3	36	27	18	9	2	4	6	32	31	29	18	14	13
15	11	9	7	1	5	37	32	28	26	24	20	19	25
19	20	6	9										

2. The marks obtained by 25 students in a class are as follows
   22, 28, 30, 32, 35, 37, 40, 41, 43, 44, 45, 45, 48, 49, 52, 53, 54, 56, 56, 58, 60, 62, 65, 68, 69
   (i) Arrange the above data on frequency distribution taking class intervals.
   20-29, 30-39, 40-49, 50-59, 60-69
   (ii) Form the cumulative frequency distribution.

3. In a city 45 families were surveyed for the number of Cell phones they used. Prepare a frequency array based on their replies as recorded below.

1	3	2	2	2	2	1	2	1	2	2	3	3	3	3
3	3	2	3	2	2	6	1	6	2	1	5	1	5	3
2	4	2	7	4	2	4	3	4	2	0	3	1	4	3