SYLHET CADET COLLEGE

TEST EXAMINATION - 2023

CLASS: XII

MULTIPLE CHOICE QUESTIONS

STATISTICS FIRST PAPER

TIME – 25 minutes

FULL MARKS – 25

Set | D

Subject Code: 1 | 2 | 9

[N.B. – Answer all the questions. Each question carries ONE mark. Block fully, with a black ball- point pen, the circle of the letter that stands for the correct/best answer in the "Answer sheet" for the Multiple Choice Questions Examination.]

Candidates are asked not to leave any mark or spot on the question paper.

1. **Which one represents an infinite population?**
   - (a) Books in a library
   - (b) Fish in the Pacific Ocean
   - (c) Members of a sports club
   - (d) Mobile phones in a city

2. **Which statistical method requires bivariate or multivariate data?**
   - (a) Standard deviation
   - (b) Histogram
   - (c) Regression analysis
   - (d) Median

3. **A survey categorizing people by their favorite color is an example of which measurement scale?**
   - (a) Nominal
   - (b) Ordinal
   - (c) Interval
   - (d) Ratio

4. **If $\sum_{i=1}^{25} z_i^2 = 75$ and $\sum_{i=1}^{25} z_i = 50$, compute $\sum_{i=1}^{25} z_i^2 + 2\sum_{i=1}^{25} z_i - 125$.**
   - (a) 50
   - (b) 75
   - (c) 100
   - (d) 25

5. **If $y_1 = 5$, $y_2 = 2$, $y_3 = -1$, and $y_4 = 4$, compute $\sum_{i=1}^{4}(y_i^2 + 2)$.**
   - (a) 50
   - (b) 40
   - (c) 44
   - (d) 60

6. **If $f_i = 3, 5, 7$ and $x_i = 2, 4, 6$, find $\sum_{i=1}^{3} f_i x_i^2$.**
   - (a) 260
   - (b) 280
   - (c) 344
   - (d) 320

7. **A good measure of central tendency -**
   i. is stable for different samples
   ii. provides a single representative value
   iii. ignores extreme values completely

   Which one is correct?
   - (a) i and ii
   - (b) i and iii
   - (c) ii and iii
   - (d) i, ii and iii

8. **For two non-zero positive numbers, the harmonic mean is 10 and the arithmetic mean is 25. What is the geometric mean?**
   - (a) 15
   - (b) 20
   - (c) 25
   - (d) 30

9. **Which measure is suitable for open-ended distribution?**
   - (a) Median
   - (b) Mode
   - (c) Geometric Mean
   - (d) Arithmetic mean

10. **Which is not a measure of central tendency?**
    - (a) Arithmetic mean
    - (b) Mode
    - (c) Range
    - (d) Quadratic mean

    Answer the next three questions based on the following information

    The following table shows weekly production of milk (in liters) by different varieties of cows.

Interval	10-20	20-30	30-40	40-50	50-60	60-70
Frequency	5	12	18	25	20	10

11. **What is the median?**
    - (a) 43
    - (b) 44
    - (c) 45
    - (d) 50

12. **What is the lower limit of class interval for first quartile?**
    - (a) 10
    - (b) 20
    - (c) 30
    - (d) 40

13. **What is the 3rd quartile?**
    - (a) 55.75
    - (b) 43.75
    - (c) 53.15
    - (d) 53.75

14. **Mode is** –

i. The most frequently occurring value
ii. Unaffected by extreme values
iii. Always unique in a dataset

Which one is correct?

(a) i and ii   (b) i and iii   (c) ii and iii   (d) i, ii and iii

"Quote"
– Author

14. **Mode is** –

i. The most frequently occurring value
ii. Unaffected by extreme values
iii. Always unique in a dataset

Which one is correct?

(a) i and ii   (b) i and iii   (c) ii and iii   (d) i, ii and iii

Answer Key

1. (b) Fish in the Pacific Ocean

2. (c) Regression analysis

3. (a) Nominal

4. (a) 50

5. (c) 44

6. (c) 344

7. (a) i and ii

8. (a) 15

9. (b) Mode

10. (c) Range

11. (b) 44

12. (c) 30

13. (d) 53.75

14. (a) i and ii