SYLHET CADET COLLEGE

FIRST TERM-END EXAMINATION - 2024

| Set | A |

CLASS: XII

MULTIPLE CHOICE QUESTIONS   **Subject Code:** | 1 | 3 | 0 |

STATISTICS FIRST PAPER

TIME – 25 minutes

FULL MARKS – 25

[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.]

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

1. **What is the value of $\sum(x_i + 4)$ if x ={2,3}?**
   (a) 23   (b) 47   (c) 22   (d) 13

2. **Which of the following is an example of an ordinal scale?**
   (a) Temperature   (b) IQ Score   (c) Educational Level   (d) Weight

   Answer the next three questions based on the following information.

   The values of x_i and f_i are given below:

x_i	1	2	3	4
f_i	2	3	4	1

3. **Find $\sum_{i=1}^{4} f_i x_i$.**
   (a) 20   (b) 21   (c) 22   (d) 24
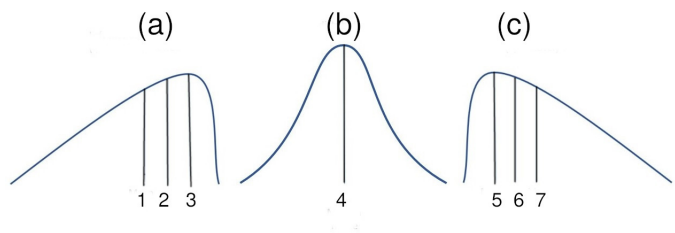
4. **Compute $\sum_{i=1}^{4} f_i x_i^2$.**
   (a) 30   (b) 35   (c) 66   (d) 64

5. **Determine $\sum_{i=1}^{4} f_i^2 x_i$.**
   (a) 74   (b) 49   (c) 78   (d) 65

6. **Which measure of central tendency is suitable for qualitative variable?**
   (a) Arithmetic Mean   (b) Harmonic Mean   (c) Quadratic Mean   (d) Mode

7. **A good measure of central tendency -**
   i. is loosly defined
   ii. takes into consideration all values
   iii. easily understandable

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

8. **The Arithmetic Mean of two numbers is 35. If one number is 50, what is the other number?**
   (a) 25   (b) 20   (c) 40   (d) 70

9. **What is the arithmetic mean of first n even natural numbers?**
   (a) $\frac{n+1}{2}$ (b) $n + 1$ (c) n (d) $\frac{n-1}{2}$

   Answer the next three questions as per the following information.

   42 44 59 64 70 72 74 91 94 are 9 values.

10. **What is the median?**
    (a) 64   (b) 70   (c) 72   (d) 71

11. **What is the first quartile?**
    (a) 42.4   (b) 44.7   (c) 51.5   (d) 64.2

12. **Above which value lie 60% observations?**
    (a) 70.4   (b) 72.0   (c) 74.6   (d) 66.4

13. **First moment around zero is –**
    (a) 0   (b) 1   (c) -1   (d) Arithmetic Mean

14. **The arithmetic mean of a variable is 2.6. What is the first raw moment around 6?**
    (a) 2.2   (b) -3.4   (c) 0.1   (d) 1.8

15. **For a symmetrical distribution, $\beta_1 = --$**
    (a) 1   (b) -1   (c) 0   (d) 3

16. $\gamma_1 = 0.43$ **implies–**

    (a) Left Skew   (b) Symmetry   (c) Right Skew   (d) Mesokurtic

    Answer the next THREE questions based on the following information

17. **The curve (a) is an example of**

    (a) Positive Skew   (b) Negative Skew   (c) No Skew   (d) Not detectable

18. **In Image (b), what is denoted by 4th value?**

    (a) Mean   (b) Median   (c) Mode   (d) All of the above

19. **What is the value corresponding to the position 7?**

    (a) Mean   (b) Median   (c) Mode   (d) None of the above

20. **In a symmetric distribution–**

    i. Frequencies of higher values are lower
    ii. Frequencies of low values are higher
    iii. Frequencies of low values are lower

    Which one is correct?

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

"We are drowning in information and starving for knowledge." – Rutherford David Rogers

Answer Key

1. (d) 13

2. (c) Educational Level

3. (d) 24

4. (c) 66

5. (a) 74

6. (d) Mode

7. (c) ii and iii

8. (b) 20

9. (b) $n + 1$

10. (b) 70

11. (c) 51.5

12. (c) 74.6

13. (d) Arithmetic Mean

14. (b) -3.4

15. (c) 0

16. (c) Right Skew

17. (b) Negative Skew

18. (d) All of the above

19. (a) Mean

20. (b) i and iii