

MYMENSINGH GIRLS' CADET COLLEGE

TEST EXAMINATION - 2025

CLASS: XII

MULTIPLE CHOICE QUESTIONS

STATISTICS

FIRST PAPER

[According to the Syllabus of 2026]

TIME – 25 minutes

FULL MARKS – 25

Subject Code:

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e:

1	2	9
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K_a

9

Set:

Ka

[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.

Answer the next two (2) questions based on the following information

Class	≤ 20	20-25	25-50	50-60	69-70	≥ 70
Frequency	5	10	10	7	5	3
Cumulative Frequency	5	15	25	32	37	40

12. For two values, the range is found to be 12. What are the values of mean deviation and standard deviation

- (a) (2,4) (b) (4,4) (c) (6, 6) (d) (8,8)

13. Which measure is unit-free?

- (a) Range (b) Mean deviation
(c) Standard deviation (d) Coefficient of variation

14. First moment around zero is –

- (a) 0 (b) 1 (c) -1 (d) Arithmetic Mean

15. The arithmetic mean of a variable is 4. What is the first raw moment around 2?

- (a) 2 (b) -2 (c) 0 (d) 8

16. Moments can be–

- i. positive
ii. not negative
iii. positive or negative

Which one is correct?

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

17. The second central moment of the natural numbers 1 through 12 is –

- (a) 12.93 (b) 11.92 (c) 10.94 (d) 12.60

18. If $\gamma_1 > 0$, the data is -

- (a) Negatively skewed (b) Positively skewed (c) Symmetric (d) Uncertain

19. Which of the following has the strongest correlation?

- (a) -0.92 (b) 0.67 (c) 0.50 (d) 0.91

20. If $b_1 = 0.25$ and $b_2 = -0.43$, which implies higher impact of the independent variable?

- (a) b_1 (b) b_2 (c) Cannot be determined (d) Equal impact

21. In additive model, in the long run, $\sum R_t = --$

- (a) 0 (b) 1 (c) Undefined (d) Infinity

Answer the next THREE questions based on the following information

Year	2015	2016	2017	2018	2019	2020	2021	2022
Average Temperature ($^{\circ}\text{C}$)	22.5	23.0	24.2	24.5	25.0	25.5	26.0	27.0

22. What is the second value of the semi-average method?

- (a) 25.75 (b) 26.00 (c) 25.88 (d) 24.29

23. What kind of trend do the data show?

- (a) Upward (b) Downward
(c) Both upward & downward (d) No trend

24. Which component of the time series is most prominent in the data?

- (a) Seasonal Variation (b) General Trend (c) Irregular Variation (d) Cyclic Variation