



MATHS

BOOKS - UNITED BOOK HOUSE

Bethune Collegiate School, Question Paper

Exercise

1. If mean and coefficient of variation of x are 10% and 40% respectively, the variance of x is

A. 4

B. 2

C. 16

D. 8

Answer:



Watch Video Solution

2. Range of a variable is affected by change of

A. a) Origin

B. b) Scale

C. c) Both Origin and scale

D. d) Neither origin nor scale

Answer:



Watch Video Solution

3. In positively skewed distribution.

A. a) $\text{mean} < \textit{median} < \text{mode}$

B. b) $\text{mean} = \text{median} = \text{mode}$

C. c) mean $>$ *median* $>$ mode

D. d) none of these

Answer:



Watch Video Solution

4. Sum of squares of first 10 natural numbers
is

A. 305

B. 385

C. 55

D. 3025

Answer:



Watch Video Solution

5. For a grouped data with open classes the measure can be calculated is

A. a) Mean

B. b) Median

C. c) Mode

D. d) Mean and Median

Answer:



Watch Video Solution

6. Median of the 7 observations (4, 5, 7, 10, 8, 2,

11) is

A. 5

B. 6

C. 7

D. 8

Answer:



Watch Video Solution

7. From Histogram graphically we can obtain

A. a) Median

B. b) Mode

C. c) Mean

D. d) none of these

Answer:



Watch Video Solution

8. Find the value of x for which $x^2 - 10x + 28$ will be minimum.



Watch Video Solution

9. For a symmetrical distribution $Q_1 = 28$,
 $Q_3 = 46$. Find the median.



[Watch Video Solution](#)

10. Give an example of ordinal data.



[Watch Video Solution](#)

11. Find the variance of following observations
30, 40, 50, 60, 70.



[Watch Video Solution](#)

12. Define relative frequency.



[Watch Video Solution](#)

13. What is Ratio Chart?



[Watch Video Solution](#)

14. If A.M. and G.M. of two positive real numbers are 25 and 15 respectively, then find their H.M.



[Watch Video Solution](#)

15. Prove that
 $n^n > 1, 3, 5, \dots, (2n - 1).$



[Watch Video Solution](#)

16. State and prove Cauchy-Schwartz inequality.



Watch Video Solution

17. Write a short note on histogram of a frequency distribution.



Watch Video Solution

18. Prove that Mean Deviation about mean cannot exceed Standard Deviation.



Watch Video Solution

19. $n = 10$, $Me(x) = 5$, $\sum_{i=1}^{10} x_i = 40$,

$\sum_{i=1}^{10} |x_i - 5| = 25$, $\sum_{i=1}^{10} |x_i - 4| = 27$ Is the

statement consistent? Give proper reason supporting your answer. Also define 71th Percentile.



Watch Video Solution

20. Prove that Mean Deviation is minimum when measured about median.



Watch Video Solution

21. a, b, c are positive proper fractions satisfying $a + b + c = 1$. Show that $8abc \leq (1 - a)(1 - b)(1 - c)$.



Watch Video Solution

