MATHS

BOOKS - UNITED BOOK HOUSE

Kalidhan Institution, Question Paper

Exercise

1. Write the two meanings of statistics.

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2. Define attribute with examples.

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3. Distinguish between discrete and continuous variable.

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4. Define primary data with examples.

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5. Define time-series data with examples.

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6. Define Pilot survey.

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7. Define tabulation.

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8. Write two uses of ogive.

9. If ω is the imaginary cube root of unity and

a+b+c=0   then   show   that

$$\left(a + b\omega + c\omega^2\right)^3 + \left(a + b\omega^2 + c\omega\right)^3 = 27abc$$

10. Define impossible event with examples.

11. Describe the different parts of a table.

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13. Distinguish between Histogram and Bar diagram.

14. Write the uses of Geometric mean.

15. Show that $\sum_{i=1}^{n} (x_i - A)^2$ is minimum when $A = \bar{x}$.

16. Prove that $\bar{x}_1 < \bar{x} < \bar{x}_2$ where the symbols have their usual meanings.

17. If y = a + bx, then show that Me(y) = a + b Me(x).

18. Show it with an experiment that different materials have different ability to conduct heat through them.

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19. Write the classical definition of probability and state its limitations.

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20. For any two events A and B, show that,

$$P(A \cup B) = P(A) + P(B) - P(A \cap B).$$

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21. How would you construct a frequency distribution of a continuous variable?

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22. A variable takes values, a, ar, ar^2,..........., ar^{n-1} with equal frequencies. Find AM, GM and HM and hence show that $(GM)^2 = A.M. \times H.M.$

23. State and prove Cauchy-Schwartz inequality.