MATHS

BOOKS - UNITED BOOK HOUSE

Model Test Set - 6

Exercise

1. Abscissa of the point of intersection of the Iess than and greater than ogives corresponds to

A. arithmetic mean

B. median

C. geometric mean

D. none of these

Answer:

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2. Median = _____ quartile

A. First

B. Second

C. Third

D. none of these

Answer:

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3. Mode depends on change of

A. Origin only

B. scale only

C. both origin and scale

D. neither origin nor scale.

Answer:

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4. Sum of the squares of deviation is least about

A. median

B. mode

C. mean

D. none of these

Answer:

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5. For a constant c, the value of $\triangle(c)$ is

A. 2

B. 1

C. 0

D. none of these

Answer:

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6. If the values of the argument are not equispaced, then which of the following interpolation formula would be applicable?

A. Newton's forward

B. Newton's backward

C. Largrange's interpolation

D. none of these

Answer:

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7. Do thenre exist integers x such that 12x =5 (mod 8)?

A. yes

B. no

C.

D.

Answer:

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8. If a≡b (mod n), then state whether $a^2 \equiv b^2$ (mod n)

A. yes

B. no

C.

D.

Answer:

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9. The expression for the event 'neither A' nor B occurs'is

A. $A \cap B$

B. $(A \cup B)^c$

C. $A \cap B^c$

D. none of these

Answer:

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10. For two mutually exclusive events A and B, P(A) + P(B) equals to 1. The above statement is

A. 1

B.

C.

D.

Answer:

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11. If the relation between two variable x and y is $5y + 7x = 11$ and the range of x is 5, then the range of y is _____ .

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12. If for a distribution $Q_1 = 25$ and $Q_3 = 45$, what percent of observations lie between 25 and 45?

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13. If $g_2 < 0$, the distribution is called _____.

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14. In a symmetric distribution, the mean and the mode are

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15. If A implies B, then what is $P(AIB)$?

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16. The probability of an impossible event is _____ .

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17. If $P(A_1) = 0.3$, then $P\left(A_1^C\right) = ?$

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18. $P(AIB) = 0.25$, then $P\left(A^C IB\right) = ?$

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19. $P(A) = \frac{1}{3}$ and $P(B) = \frac{1}{4}$, Find $[P(A \cup B)]_{\max}$.

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20. State the tests of consistency for price index numbers.

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21. Define Patent.

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22. What do you mean by ETC?

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23. Find the standard deviation of first n even positive integers.

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24. Find the probability of getting a difference of score as '3' when two perfect dice ae thrown at a

time.

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25. $P(A \cup B) = 0.6, P(A \cap B) = 0.2$ Determine, $P(A^c) + P\left(B^C\right)$.

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26. If $P\left(A^C \cup B^c\right) = \frac{5}{6}$, $P(A) = \frac{1}{2}, P\left(B^C\right) = \frac{2}{3}$ are the events A and B independent?

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27. Find the formula of combined geomtric mean.

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28. State and prove Cauchy-Schwartz inequality.

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29. Prove that,

$$\frac{1}{x+y-z}+\frac{1}{z+x-y}+\frac{1}{y+z-x}>\frac{9}{x+y+z}$$

where x, y and z are unequal positive quantities

such that the sum total of any two is greater that the third.

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30. State Newton's forward interpolation formula. Derive the first two terms of the forumula.

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31. Find $\triangle^3 f(2)$ from the following values of $f(x): f(2) = 9, f(4) = 63, f(6) = 211, f(8) = 506$.

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32. In respect to a finite sample space define, with example Disjoint events.

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33. In respect to a finite sample space define, with example Equally likely events.

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

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35. If the letters of the word 'RAMESH' are arranged at random, what is the probability that there are exactly two letters between A and E. .

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36. Define price index number and state its uses.

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37. Show that criide death rate can be expressed as weighted arithmetic mean of age spefiic death rates.

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38. For a set of positive quantities, Prove that $A.M. \geq GM \geq H.M..$

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39. State and Prove the Bayes theorem of probability.

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40. Discuss different problems in the construction of price index number.

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41. Decribe the structure of a life table.

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