



MATHS

BOOKS - UNITED BOOK HOUSE

HIGHER SECONDARY EXAMINATION

2019

Exercise

1. Find out the correct answer out of the options given against each question: Sampling

distribution is the probability distribution of

A. Statistic

B. parameter

C. sample

D. population.

Answer:



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2. Find out the correct answer out of the options given against each question: S. E. of sample mean for SRSWOR scheme is

A. $\frac{\sigma}{\sqrt{n}}$

B. $\frac{\sigma}{\sqrt{N}}$

C. $\frac{\sigma}{\sqrt{N}}$

D. $\frac{\sigma}{\sqrt{N}} \sqrt{\frac{N-1}{N-n}}$

Answer:



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3. Find out the correct answer out of the options given against each question: If

$$E(T_1) = \theta_1 + 2\theta_2, E(T_2) = \theta_1 + \theta_2, \text{ then}$$

unbiased estimator of θ_1 is-

A. $T_1 + T_2$

B. $T_2 - T_1$

C. $2T_2 - T_1$

D. T_1

Answer:



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4. Find out the correct answer out of the options given against each question: If the correlation coefficient between x and y is 0.3 , then the correlation coefficient between $-x$ and $2y$ is-

A. -0.6

B. -0.3

C. 0.3

D. 0

Answer:



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5. Find out the correct answer out of the options given against each question : If the mean of a binomial distribution is a positive integer, then-

A. Mean = mode

B. Mean gt mode

C. Mean lt mode

D. Mean = mode

Answer:



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6. Find out the correct answer out of the options given against each question: If $u = 2x$, $v = -7y$ and $r_{uv} = 0.7$, then $r_{xy} =$

A. 0.7

B. -0.7

C. 0

D. cannot be calculated

Answer:



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7. Find out the correct answer out of the options given against each question: $E(x) = 4, E(y) = 3$, then $E(xy) =$

A. 12

B. 0

C. -12

D. cannot be calculated

Answer:



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8. Find out the correct answer out of the options given against each questions : Poisson distribution is always

- A. positively skewed and mesokurtic
- B. Positively skewed and leptokurtic
- C. negatively skewed and leptokurtic
- D. negatively skewed and platykurtik.

Answer:



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9. Find out the correct answer out of the options given against each question: For deriving regression equations, we minimise-

A. sum of difference of errors

B. Sum of errors

C. sum of squares of errors

D. none of these

Answer:



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10. Answer the following questions

(Alternatives are to be noted) :Name two

models used in Time Series analysis.



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11. Answer the following questions
(Alternatives are to be noted) :Write down the
names of two symmetrical distributions.



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12. Answer the following questions
(Alternatives are to be noted) : What are
regression coefficients?





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13. Answer the following questions
(Alternatives are to be noted): Give two examples of control chart for variables.



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14. Answer the following questions
(Alternatives are to be noted) : Define median for a discrete random variable.



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15. Answer the following questions
(Alternatives are to be noted) : Define bias in
sample survey.



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16. Answer the following questions
(Alternatives are to be noted): If two lines of
regression are given by $2x + 3y = 13$ and $3x + 4y$
 $= 18$, find the sum of A. M. s of x and y .



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17. Answer the following questions

(Alternatives are to be noted): If x is continuous random variable with p. d. f.

$$\begin{cases} \frac{1}{2} - ax & 0 \leq x \leq 4 \\ 0 & \textit{otherwise} \end{cases} \text{ where } a \text{ is a constant,}$$

then find the value of a .



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18. Answer the following questions (Alternatives are to be noted): If X follows Poisson distribution with $P[X = K] = P[X = K + 1]$ for some positive integer K , find μ_3 .



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19. Answer the following questions (Alternatives are to be noted): Distinguish between SRSWOR and SRSWR.



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20. Answer the following questions (Alternatives are to be noted): Describe how you would fit an exponential trend to time series data using method of least square.



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