

Section [Unit 4] 4 of 6 Question : 8 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

If for normal distribution, $\text{var}(\bar{x}) = \frac{\sigma^2}{n}$, and $\text{var}(\text{median}) = \frac{\pi}{2} \frac{\sigma^2}{n}$, then which one of the following is the efficient estimator?

 σ 2 median none of these

Clear Response

Section [Unit 4] 4 of 6 Question : 9 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

The MLE of population mean for a Poisson $P(m)$ population if (x_1, x_2, \dots, x_n) is

- m
- 1/m
- $\frac{(\sum_{i=1}^n x_i)}{n}$
- $\sum_{i=1}^n x_i$



Clear Response

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Section [Unit 5] 5 of 6 Question : 1 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

Which of the following test is the test for equality of variance?

- Z-test (single mean)
- t-Test
- Paired t-test
- F-test

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Section [Unit 4] 4 of 6 Question : 10 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

The estimation method in which the parameter is estimated by the value of a single statistic is called

- Interval estimation
- Constant estimation
- Point estimation
- None of these

Clear Response



Section [Unit 4] 4 of 6 Question : 9 of 10 Marks : 1 Negative Marks : -25% on wrong answer

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The MLE of population mean for a Poisson $P(m)$ population if (x_1, x_2, \dots, x_n) is

- m
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- $\sum_{i=1}^n x_i$



Clear Response

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Section [Unit 5] 5 of 6 Question : 3 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

If sample size is large, then which of the following is true? (σ =population variance, s^2 =sample variance)

- $\frac{s^2}{\sqrt{n}} \approx \frac{\sigma^2}{\sqrt{n}}$
- $\frac{s^2}{\sqrt{n}} = 2 \frac{\sigma^2}{\sqrt{n}}$
- $\frac{s^2}{\sqrt{n}} \neq \frac{\sigma^2}{\sqrt{n}}$
- None of these

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Section [Unit 5] 5 of 6 Question : 5 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

The calculated t value is 9.10 whereas the table value is given as 2.262 for 5% level of significance and 9 degrees of freedom.

- Type 2 error
- Type 1 error
- No error is there
- No conclusion



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Section [Unit 5] 5 of 6 Question : 4 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

The population mean and SD are estimated as 1000 and 257.298. But, from a sample of size 5, collected from p

- 105.56
- 120.67
- 115.067
- 110

Clear Response

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Section [Unit 5] 5 of 6 Question : 7 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

In single mean z-test the calculated z value is 1.59 and the table value of z at 95% confidence interval is 1.96. Then what?

- null hypothesis is accepted
- null hypothesis is rejected
- No hypothesis will be accepted
- No conclusion

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Section [Unit 5] 5 of 6 Question : 8 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

For 95% confidence Interval, the value of the level of significance will be

- 90%
- 95%
- 10%
- 5%

Clear Response

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Section [Unit 2] 5 of 6 Question : 6 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

The null and alternative hypotheses are given as $H_0 = 30.5$ and $H_1 < 30.5$. From a sample of size 100, it is found

null hypothesis is accepted

null hypothesis is rejected

No hypothesis can be accepted

None of these

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Section [Unit 5] 5 of 6 Question : 10 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

The test statistic for a two-sided significance test for a population mean is $z = -2.12$. The hypotheses are $H_0: \mu=10$ versus $H_a: \mu \neq 10$. The p-value is

0.983

0.887

0.175

0.569

Clear Response

Section [Unit 5] 5 of 6 Question : 3 of 10 Marks : 1 Negative Marks : -25% on wrong answer

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If sample size is large, then which of the following is true? (σ =population variance, s^2 =sample variance)

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- $\frac{s^2}{\sqrt{n}} \neq \frac{\sigma^2}{\sqrt{n}}$
- None of these

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Section [Unit 5] 5 of 6 Question : 5 of 10 Marks : 1 Negative Marks : -25% on wrong answer

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- Type 1 error
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- No conclusion



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Section [Unit 5] 5 of 6 Question : 4 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

The population mean and SD are estimated as 1000 and 257.298. But, from a sample of size 5, collected from p

- 105.56
- 120.67
- 115.067
- 110

Clear Response

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- 10%
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Clear Response

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Section [Unit 1] 1 of 6 Question : 1 of 5 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

The probability of getting two tails when two coins are tossed is

1/2

1/4

0

1

This is the beginning of the test

Clear Response



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Section [Unit 1] 1 of 6

Question : 2 of 5

Marks : 1

Negative Marks : -25

Select the correct answer

What is the probability of getting an even number when a dice is thrown?

- 1/2
- 1/3
- 1/4
- 1/5

Give Response

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Section [Unit 1] 1 of 6

Question : 3 of 5

Marks : 1

Negative Marks : -25% on wrong answer

Select the correct answer

What will be the percentage value of $P(-A)$ if $P(A) = 0.07$?

- 100%
- 92%
- 95%
- 93%

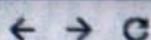
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Section [Unit 2] 2 of 6 Question : 1 of 5 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

The area under the curve of any pdf function is

1



0

0.5

∞



Clear Response



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Section [Unit 1] 1 of 6 Question : 5 of 5 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

What is the probability of getting the sum as a prime number if two dice are thrown?

 5/24 5/14 5/12 5/16

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Section [Unit 2] 2 of 6

Question : 2 of 5

Marks : 1

Negative Marks :-25% on wrong ans

Select the correct answer

Provided $0 \leq x \leq 3$. Then what is the value of $E(X^2)$? A B C DClear Response

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Section [Unit 1] 1 of 6

Question : 4 of 5

Marks : 1

Negative Marks : -25% on wrong answer

Select the correct answer

If two dice are thrown together, what is the probability of getting an even number on one dice and an odd number on the other?

1/5

1/3

1/6

1/2

Clear Response



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Section [Unit 2] 2 of 6

Question : 3 of 5

Marks : 1

Negative Marks : -25% on wrong ans

Select the correct answer

The variance of a random variable X is denoted by

- $E(X)$
- $E(X^2)$
- $E(X^2) - \{E(X)\}^2$
- None of these



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Section [Unit 2] 2 of 6

Question : 4 of 5

Marks : 1

Negative Marks : -25% on wrong

Select the correct answer

For a variate X, $E(X)$ refers to the mean of X Variance of X S.D. of X Skewness of X

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Section [Unit 2] 2 of 6

Question : 2 of 5

Marks : 1

Negative Marks :-25% on wrong ans

Select the correct answer

Provided $0 \leq x \leq 3$. Then what is the value of $E(X^2)$? 8 9 3 2

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Section [Unit 2] 2 of 6

Question : 3 of 5

Marks : 1

Negative Marks : -25% on wrong ans

Select the correct answer

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- $E(X^2)$
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Section [Unit 2] 2 of 6

Question : 4 of 5

Marks : 1

Negative Marks : -25% on wrong

Select the correct answer

For a variate X, $E(X)$ refers to the mean of X Variance of X S.D. of X Skewness of X

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Section [Unit 3] 3 of 6

Question : 1 of 5

Marks : 1

Negative Marks : -25%

Select the correct answer

The normal curve attains its height value at

- 0
- 1
- mean
- variance

Clear Response



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Section [Unit 3] 3 of 6

Question : 2 of 5

Marks : 1

Negative Marks :-25% on wrong answer

Select the correct answer

If n and p are the parameters of binomial distribution, then $np(p-1)$ is defined as

- mean
- variance
- S.D.
- None of these

Clear Response

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Section [Unit 4] 4 of 6

Question : 1 of 10

Marks : 1

Negative Marks : -25%

Select the correct answer

A random sample $\{x_1, x_2, \dots, x_n\}$ is taken from a normal population $N(\mu, 1)$. Then $\frac{1}{n}$

- μ
- $\mu^2 + 1$
- μ^2
- $\mu^2 - 1$

Clear Response



Section [Unit 4] 4 of 6 Question : 2 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

If the statistic t is a consistent estimator of θ , then for any arbitrary $\epsilon > 0$,

- $\lim_{n \rightarrow \infty} P[|t_n - \theta| > \epsilon] = 0$
- $\lim_{n \rightarrow \infty} P[|t_n - \theta| > \epsilon] = 1$
- $\lim_{n \rightarrow \infty} P[|t_n - \theta| < \epsilon] = 0$
- $\lim_{n \rightarrow \infty} P[|t_n - \theta| \leq \epsilon] = 0$

Next Question

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Section [Unit 3] 3 of 6

Question : 5 of 5

Marks : 1

Ne

Select the correct answer

The Poisson pmf with m as parameter is given as

- $\frac{m^x}{x!} e^{-m}$
- $\frac{m^x}{x!} e^m$
- $\frac{m^x}{x!} e^{-m}$
- $\frac{m^x}{x!} e^{mx}$



Section [Unit 4] 4 of 6

Question : 5 of 10

Marks : 1

Negative Marks : -25% on wrong answer

Select the correct answer

Which of the following statistic is an unbiased estimator of population variance σ^2 ? (Considering s^2 and n as known parameters)

$\frac{(n-1)}{n} s^2$

$\frac{1}{n} s^2$

$\frac{n-1}{n} s^2$

s^2

Submit

Clear Response



Section [Unit 4] 4 of 6

Question : 3 of 10

Marks : 1

Negative Marks : -25% on wrong answer

Select the correct answer

The likelihood function of the distribution $f(x; a, b) = \frac{1}{b-a}$, $a \leq x \leq b$; and $f(x; a, b) = 0$, otherwise

What is the likelihood function?

(b - a)ⁿ

$\frac{1}{(b-a)^n}$

$\frac{n!}{(b-a)^n}$

$\frac{1}{(b-a)^n}$

 Clear Response



Section [Unit 4] 4 of 6 Question : 7 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

The sample mean is referred to as

- statistic
- parameter
- constant
- none of these



Clear Response

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Section [Unit 4] 4 of 6 Question : 6 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

A sample (x,y,z) is taken from Binomial $B(N,p)$ population. What is the likelihood function?

- $N C_x^N C_y^N C_z^N p^{x+y+z} (1-p)^{N-(x+y+z)}$
- $N C_x^N C_y^N C_z^N p^{x+y+z} (1-p)^{3-(x+y+z)}$
- $N C_x^N C_y^N C_z^N p^{x+y+z} (1-p)^{3N-(xyz)}$
- $N C_x^N C_y^N C_z^N p^{x+y+z} (1-p)^{3N-(x+y+z)}$

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Section [Unit 5] 5 of 6 Question : 10 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

The test statistic for a two-sided significance test for a population mean is $z = -2.12$. The hypotheses are $H_0: \mu=10$ versus $H_a: \mu \neq 10$. The p-value is

0.983

0.887

0.175

0.569

Clear Response

Section [Unit 5] 5 of 6 Question : 3 of 10 Marks : 1 Negative Marks : -25% on wrong answer

Select the correct answer

If sample size is large, then which of the following is true? (σ =population variance, s^2 =sample variance)

- $\frac{s^2}{\sqrt{n}} \approx \frac{\sigma^2}{\sqrt{n}}$
- $\frac{s^2}{\sqrt{n}} = 2 \frac{\sigma^2}{\sqrt{n}}$
- $\frac{s^2}{\sqrt{n}} \neq \frac{\sigma^2}{\sqrt{n}}$
- None of these

Submit

View History





Section [Unit 6] 6 of 6

Question : 2 of 10

Marks : 1

Negative Marks : -25% on wrong

Select the correct answer

In linear regression, the degree of the curve which is to be fit with the points is

- 0
- 1
- 2
- 3





Section [Unit 6] 6 of 6

Question : 3 of 10

Marks : 1

Negative Marks : -25% on wrong

Select the correct answer

Two regression lines are respectively given as:

$$2x-3y=8$$

$$5x-y=6$$

What is the mean of X data set? 0 1 2 3

Clear Response



Section [Unit 6] 6 of 6

Question : 4 of 10

Marks : 1

Negative Marks : -25% on

Select the correct answer**For a positive correlation between two sets of data, which of the following is true?** r<0 r=0 r>0 r=1**Clear Response**

Section [Unit 6] 6 of 6

Question : 6 of 10

Marks : 1

Negative Marks : -25% on wrong answer

Select the correct answer

For correlation coefficient (r)=-1, which of the following option is true?

- The regression line is $x-y=0$
- The regression line is $x=0$
- The regression line is $y=0$
- None of the above

Check Response



Section [Unit 6] 6 of 6

Question : 5 of 10

Marks : 1

Negative Marks : -25% on w

Select the correct answer

In rank correlation, which of the following statement is true?

- No variate values are ranked
- Only one variate values should be ranked
- Every variate values are ranked
- None of these



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Section [Unit 6] 6 of 6

Question : 7 of 10

Marks : 1

Negative Marks : -25% on wrong a

Select the correct answer

If the $\text{Cov}(X, Y) = 3$, $\text{Var}(X) = 4.5$, and $\text{Var}(Y) = 5.5$, then what is the value of the correlation coefficient?

 0.203 0.403 0.503 0.603

Clear Response



Section [Unit 6] 6 of 6

Question : 8 of 10

Marks : 1

Negative Marks : -25% on w

Select the correct answer

The value of the correlation coefficient ranges between

 0 to 1 -1 to 0 -1 to 1 -2 to 2**Next Question**



Section [Unit 6] 6 of 6

Question : 10 of 10

Marks : 1

Negative Marks : -25% on wrong ans

Select the correct answer

What is the correlation coefficient of the following bi-variate data (1,-1), (2, -2), (3,-3)...(n,-n) ?

- 0
- 1
- 0.5
- 1

[Clear Response](#)



Section [Unit 6] 6 of 6

Question : 9 of 10

Marks : 1

Negative Marks : -25% on wrong answer

Select the correct answer

The regression line is calculated as $y=x$. The will be the value of the correlation coefficient?

 0 1 -1 0.5
Clear Response

The Poisson pmf with m as parameter is given as

- $\frac{m^x}{x!} e^{-m}$
- $\frac{m^x}{x!} e^{-m}$
- $\frac{m^x}{x!} e^{-m}$
- $\frac{e^{-m} m^x}{x!}$

wrong answer

Normal distribution, $\text{var}(\bar{x}) = \frac{\sigma^2}{n}$, and $\text{var}(\text{median}) = \frac{\pi \sigma^2}{2 n}$, then which one of the following is the efficient estimator?

- σ
- \bar{x}
- median
- none of these

Finish

Clear Response

Get answer
Which of the following statistic is an unbiased estimator of population variance σ^2 ? (Considering s^2 and n as sample variance and size, respectively).

$\frac{(n-1)}{n} s^2$

$\frac{1}{n} s^2$

$\frac{n-1}{n} s^2$

s^2

Finish 

Clear Response

Select answer

Negative Marks: -0.25%, On v

A random sample (x_1, x_2, \dots, x_n) is taken from a normal population $N(\mu, \sigma^2)$. Then $\frac{1}{n} \sum_{i=1}^n x_i^2$ is an unbiased estimator of

- μ
- $\mu^2 + 1$
- μ^2
- $\mu^2 - 1$

Finish

Clear Response

If the statistic t is a consistent estimator of θ , then for any arbitrary $\epsilon > 0$,

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