

Quiz 3

Due Mar 12 at 23:59**Points** 5**Questions** 10**Available** Mar 11 at 18:00 - Mar 12 at 23:59**Time Limit** 60 Minutes

Instructions

Quiz 3 is scheduled from 11th March 2023, 6:00 pm to 12th March 2023, 11:59 pm.

- Number of questions - 10
- Each question carries 0.5 M
- Time duration - 1 Hour
- Read the question properly and answer.

All the best!!!!

Attempt History

	Attempt	Time	Score
LATEST	Attempt 1	20 minutes	4 out of 5

⚠ Correct answers will be available on Mar 13 at 18:00.

Score for this quiz: **4** out of 5

Submitted Mar 12 at 21:10

This attempt took 20 minutes.

Question 1

0.5 / 0.5 pts

When do you say that the distribution is positively skewed?

☐ Mean < Median

☒ Mean > Median

☐ None

☐ Mean= Median

Question 2**0.5 / 0.5 pts**

A fair coin is tossed three times. What is the probability of obtaining one Head and two Tails?

☒ 3/8☐ 1/2☐ 5/9☐ 1/3**Question 3****0.5 / 0.5 pts**

An experiment consists of two events E_1 and E_2 where $P(E_1)=0.35$ and $P(E_2)= 0.55$. what is the probability that event E_1 or event E_2 will occur if E_1 and E_2 are independent?

☐ 0.6075☐ 0.9075☐ 0.8075☒ 0.7075**Question 4****0.5 / 0.5 pts**

A pair of dice is thrown 4 times.If getting a doublet is considered success, Find the Probability of 2 success.

☐ 35/216☐ 12/216☒ 25/216☐ 15/216**Question 5****0.5 / 0.5 pts**

If a random variable X follows a Poisson distribution with parameter λ , what is the variance of X ?

☒ λ ☐ λ^2 ☐ $\frac{1}{\lambda}$ ☐ 2λ **Incorrect****Question 6****0 / 0.5 pts**

A joint probability density function of the random variable x, y and z is

$F(x,y,z) = 8xyz$, $0 < x, y, z < 1$ then find $P(x < y < z)$. (up to 2 places)

☐ 0.14 - 0.17☐ 0.13 - 0.15

☒ 0.12 - 0.14☐ 0.16 - 0.18**Question 7****0.5 / 0.5 pts**

Let X be a normal random variable with mean zero and variance 9. If $a = P(X > 3)$, then $P(|X| \leq 3)$ equals:

☐ a☒ $1 - 2a$ ☐ $1 - a$ ☐ $2a$ **Question 8****0.5 / 0.5 pts**

Sampling means following a sequence of stages. Which ONE of the following stages should come before the others?

☒ Examine the objective of the study☐ Find suitable source for the population members☐ Proceed with the fieldwork.☐ Define the people of interest.**Question 9****0.5 / 0.5 pts**

Find the 99% confidence interval estimate if the sample mean \bar{X} = 0, the sample size $n=121$ and $\sigma=11$.

- ☐ -4.722354 to 4.722354
- ☐ -1.133365 to 1.133365
- ☐ -1.888941 to 1.888941
- ☒ -2.575829 to 2.575829

Incorrect

Question 10

0 / 0.5 pts

1. If we accept a Null hypothesis, when it is false then this is an error of type _____

- ☐ BOTH
- ☐ Can't be determined
- ☐ II
- ☒ I

Quiz Score: **4** out of 5