



STA301 QUIZ(2)

RIZ MUGHAL **SQA ENGINEER:**

I'm providing 100% correct quiz solution.

You can visit my YouTube channel for more quiz solution, also final year project including project assignments, and viva.


YOUTUBE:
<https://www.youtube.com/channel/UCINsFwDiB62SValCcPDZbRQ/playlists>

FACEBOOK:
<https://www.facebook.com/groups/923887914750307>

Question # 1 of 10 (Start time: 07:48:22 AM, 01 February 2021)

Which of the following statements is not an example of a continuous random variable?

Select the correct option

- | | |
|----------------------------------|---------------------------------------------------------|
| <input type="radio"/> | The weight gain in pounds per month for a calf |
| <input type="radio"/> | The price for cheese cake in New York Style cheese cake |
| <input type="radio"/> | The time it takes you to finish this statistics test |
| <input checked="" type="radio"/> | The time to failure for an electronic system |
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Question # 2 of 10 (Start time: 07:48:48 AM, 01 February 2021)

Total Marks: 1

Consider a large population with a mean of 160 and a standard deviation of 20. A random sample of size 64 is taken from this population. What is the standard deviation of the sample mean?

Select the correct option

- | | | |
|----------------------------------|-------|----|
| <input type="radio"/> | 3.125 | // |
| <input checked="" type="radio"/> | 2.500 | // |
| <input type="radio"/> | 1.654 | // |
| <input type="radio"/> | 3.568 | // |
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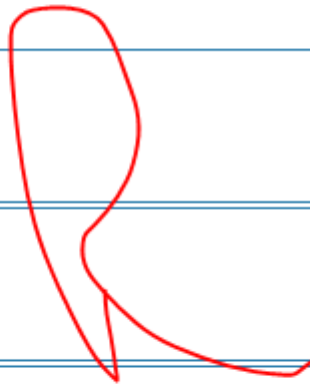
Question # 3 of 10 (Start time: 07:49:05 AM, 01 February 2021)

Suppose 'X' is equal to the number of heads, when you throw a coin three times. The possible values of X are:

Select the correct option

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | 1,2,3 |
| <input checked="" type="radio"/> | 0,1,2,3 |
| <input type="radio"/> | 0,1,2,3,..... |
| <input type="radio"/> | 1,2,3,..... |

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Question # 4 of 10 (Start time: 07:49:25 AM, 01 February 2021)

If we have $f(x) = 4x$, $0 \leq x \leq 1$, then $f(x)$ is a:

Select the correct option

- | | |
|----------------------------------|------------------------------|
| <input type="radio"/> | Continuous random variable |
| <input type="radio"/> | Distribution function |
| <input checked="" type="radio"/> | Probability density function |
| <input type="radio"/> | Probability distribution |
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Question # 5 of 10 (Start time: 07:49:40 AM, 01 February 2021)

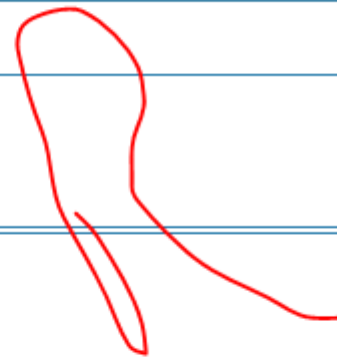
Total Marks: 1

The sum of the probabilities of bivariate probabilities function $f(X, Y)$ is ONE then what will be the value of sum of its marginal probability function $f(x)$?

Select the correct option

- | | | |
|----------------------------------|--------------------------------------|----|
| <input checked="" type="radio"/> | Will be one | // |
| <input type="radio"/> | May and may not be one | // |
| <input type="radio"/> | Will be the average of two variables | // |
| <input type="radio"/> | Depends on the Y variable | // |

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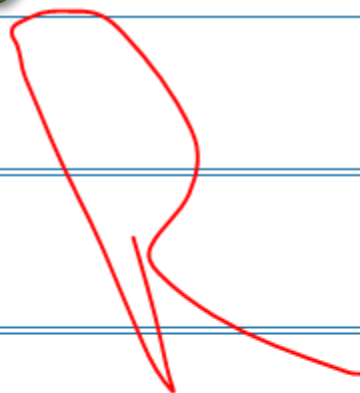
Question # 6 of 10 (Start time: 07:49:58 AM, 01 February 2021)

If the second moment ratio is less than 3 the distribution will be:

Select the correct option

- | | |
|----------------------------------|---------------|
| <input type="radio"/> | Mesokurtic |
| <input type="radio"/> | Leptokurtic |
| <input checked="" type="radio"/> | Platykurtic |
| <input type="radio"/> | None of these |

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Question # 7 of 10 (Start time: 07:50:13 AM, 01 February 2021)

$E(10X + 3) = \underline{\hspace{2cm}}$

Select the correct option

- | | |
|----------------------------------|-------------|
| <input type="radio"/> | $10 E(X)$ |
| <input type="radio"/> | $E(X)+3$ |
| <input checked="" type="radio"/> | $10 E(X)+3$ |
| <input type="radio"/> | $100E(X)$ |

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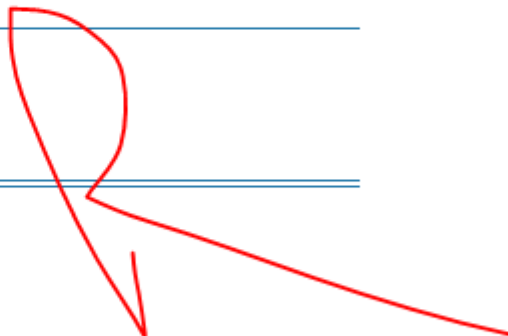
Question # 8 of 10 (Start time: 07:50:29 AM, 01 February 2021)

Which of the probability distributions has three parameters?

Select the correct option

- | | |
|----------------------------------|-----------------------------|
| <input type="radio"/> | Binomial distribution |
| <input type="radio"/> | Normal distribution |
| <input checked="" type="radio"/> | Hypergeometric distribution |
| <input type="radio"/> | Poisson distribution |

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Question # 9 of 10 (Start time: 07:50:42 AM, 01 February 2021)

Let X and Y are TWO random variables. Which property of expectation is true?

Select the correct option

- | | |
|----------------------------------|----------------------------------|
| <input type="radio"/> | $E(X + Y) = 2 * \{E(X) + E(Y)\}$ |
| <input type="radio"/> | $E(X + Y) = E(X) + E(Y) - E(XY)$ |
| <input type="radio"/> | $E(X + Y) = 2 E(X + Y)$ |
| <input checked="" type="radio"/> | $E(X + Y) = E(X) + E(Y)$ |

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Question # 10 of 10 (Start time: 07:50:57 AM, 01 February 2021)

If $f(x) = 1/10$, $x = 10$, then $E(X)$ is:

Select the correct option

<input type="radio"/>	0
<input checked="" type="radio"/>	1
<input type="radio"/>	-1
<input type="radio"/>	6/8

2nd account

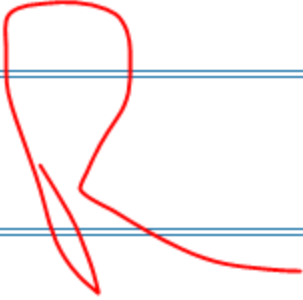
Question # 1 of 10 (Start time: 07:52:46 AM, 01 February 2021)

Using the normal approximation to the binomial distribution with $n= 3$ and $p= 0.0571$ the value of mean is:

Select the correct option

<input checked="" type="radio"/>	0.1713
<input type="radio"/>	0.2132
<input type="radio"/>	0.5133
<input type="radio"/>	0.1923

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Question # 2 of 10 (Start time: 07:53:13 AM, 01 February 2021)

When a coin is tossed 3 times, the probability of getting 3 or less tails is

Select the correct option

- | | |
|----------------------------------|-------|
| <input type="radio"/> | $1/2$ |
| <input type="radio"/> | 0 |
| <input checked="" type="radio"/> | 1 |
| <input type="radio"/> | $3/5$ |

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Question # 3 of 10 (Start time: 07:53:26 AM, 01 February 2021)

Which of the probability distributions has three parameters?

Select the correct option

- | | |
|----------------------------------|-----------------------------|
| <input type="radio"/> | Binomial distribution |
| <input type="radio"/> | Normal distribution |
| <input checked="" type="radio"/> | Hypergeometric distribution |
| <input type="radio"/> | Poisson distribution |

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Question # 4 of 10 (Start time: 07:53:47 AM, 01 February 2021)

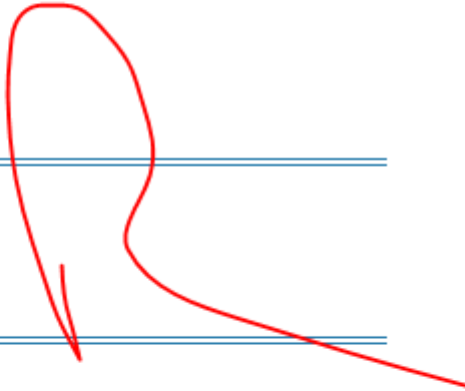
In a normal distribution how much area lies between $\mu \pm 3\sigma$

Select the correct option

Re

<input type="radio"/>	70%
<input type="radio"/>	89%
<input type="radio"/>	68%
<input checked="" type="radio"/>	99.73%

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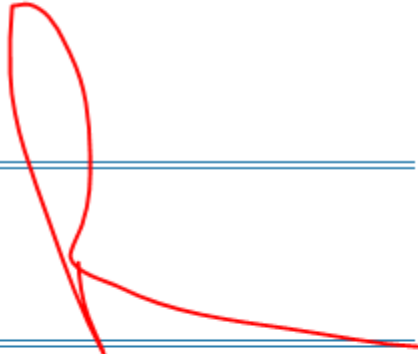
Question # 5 of 10 (Start time: 07:54:03 AM, 01 February 2021)

In a normal distribution how much area lies between $\mu \pm 2\sigma$

Select the correct option

<input type="radio"/>	94%
<input type="radio"/>	75%
<input checked="" type="radio"/>	95.45%
<input type="radio"/>	85%

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Question # 6 of 10 (Start time: 07:54:18 AM, 01 February 2021)

If $E(x) = 2.5$ then $E(2X+0) = \dots$:

Select the correct option

<input type="radio"/>	2.5
<input checked="" type="radio"/>	5
<input type="radio"/>	0
<input type="radio"/>	3.5

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Question # 7 of 10 (Start time: 07:54:32 AM, 01 February 2021)

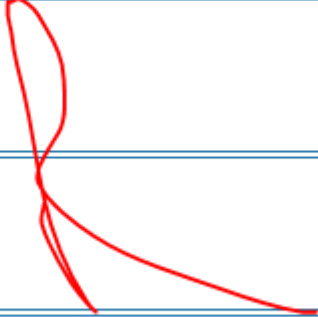
Total Marks: 1

We can apply binomial distribution formula, when we are drawing a sample from finite population without replacement and the sample size "n" is not more than% of the population size N.

Select the correct option

<input type="radio"/>	10%
<input type="radio"/>	8%
<input checked="" type="radio"/>	5%
<input type="radio"/>	1%

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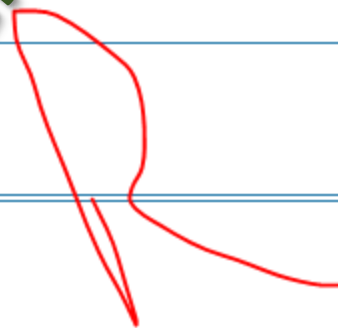
Question # 8 of 10 (Start time: 07:54:49 AM, 01 February 2021)

Normal approximation to the binomial distribution is used when:

Select the correct option

- | | |
|-------------------------------------|-------------------|
| <input type="radio"/> | $np > 5$ |
| <input type="radio"/> | $nq > 5$ |
| <input checked="" type="checkbox"/> | Both of the above |
| <input type="radio"/> | None of the above |

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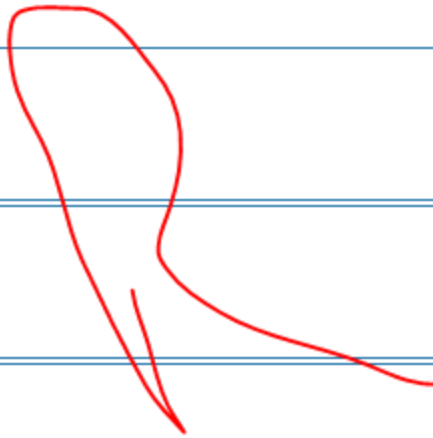


Question # 9 of 10 (Start time: 07:55:05 AM, 01 February 2021)

Total Marks: 1

We can obtain the individual probabilities of x and y from the joint probability function/distribution of $f(x,y)$. Such individual probabilities are known as

Select the correct option

- | | | |
|----------------------------------|---------------------------|----|
| <input checked="" type="radio"/> | Marginal probabilities | // |
| <input type="radio"/> | Bivariate probabilities | // |
| <input type="radio"/> | Separate probabilities | // |
| <input type="radio"/> | Independent probabilities | // |
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Question # 10 of 10 (Start time: 07:55:25 AM, 01 February 2021)

If $E(x) = 1.5$ then $E(2X+3)=$:

Select the correct option

- | | |
|----------------------------------|-----|
| <input type="radio"/> | 3 |
| <input type="radio"/> | 2 |
| <input type="radio"/> | 1.5 |
| <input checked="" type="radio"/> | 6 |
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3rd account

Question # 1 of 10 (Start time: 07:59:06 AM, 01 February 2021)

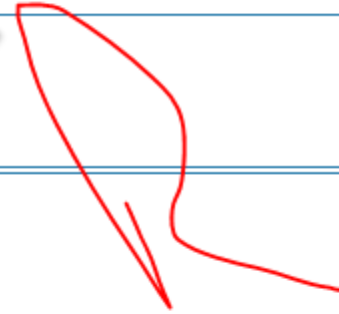
Total Mark

If the sampled population has a normal distribution, when is the sampling distribution of the sample mean also a normal distribution?

Select the correct option

- | | |
|----------------------------------|----------------------------------------------|
| <input type="radio"/> | Only when the sample size is at least 100 |
| <input type="radio"/> | Only when the sample size is smaller than 30 |
| <input checked="" type="radio"/> | Always |
| <input type="radio"/> | Only when the sample size is at least 30 |

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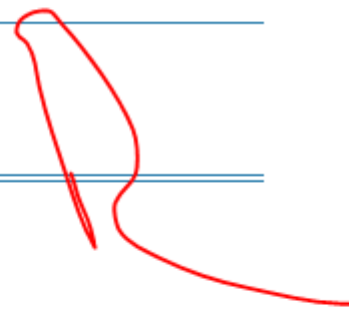
Question # 2 of 10 (Start time: 07:59:51 AM, 01 February 2021)

Which of the following statements is not an example of a continuous random variable?

Select the correct option

- The weight gain in pounds per month for a man
- The price for cheese cake in New York Style cheese cake
- The time it takes you to finish this statistics test
- The time to failure for an electronic system

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Question # 3 of 10 (Start time: 08:00:13 AM, 01 February 2021)

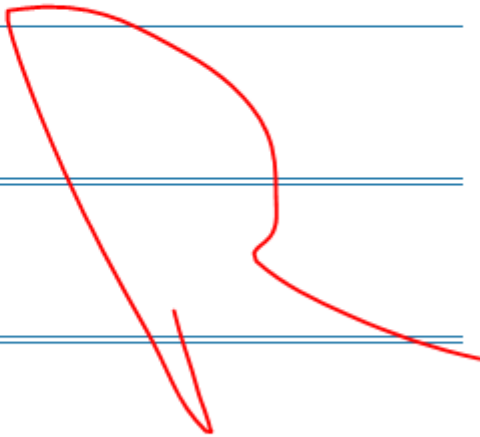
The probability mass function $p(x)$ of a discrete random variable X is: $P(0)=0.10$, $P(1)=0.15$, $P(2)=0.45$, $P(3)=0.05$, and $P(4)=0.25$.

What is the value of cumulative distribution function for $x=2$

Select the correct option

- 0.3
- 0.5
- 0.7
- 0.5

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Question # 4 of 10 (Start time: 08:00:30 AM, 01 February 2021)

In a binomial experiment successive trials are:

Select the correct option

<input type="radio"/>	Dependent
<input checked="" type="radio"/>	Independent
<input type="radio"/>	Both
<input type="radio"/>	None

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Question # 5 of 10 (Start time: 08:00:48 AM, 01 February 2021)

Match the binomial probability $P(x < 23)$ with the correct statement.

Select the correct option

- | | |
|----------------------------------|---------------------------------------|
| <input type="radio"/> | P(there are at most 23 successes) |
| <input checked="" type="radio"/> | P (there are fewer than 23 successes) |
| <input type="radio"/> | P (there are more than 23 successes) |
| <input type="radio"/> | P (there are at least 23 successes) |

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Question # 6 of 10 (Start time: 08:01:02 AM, 01 February 2021)

The two mutually exclusive outcomes in a Bernoulli trial are usually called:

Select the correct option

- | | |
|----------------------------------|-------------------------------------------------------|
| <input checked="" type="radio"/> | Success and failure |
| <input type="radio"/> | Variable and constant |
| <input type="radio"/> | Mean and variance |
| <input type="radio"/> | With and without replacement e trials are independent |

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Question # 7 of 10 (Start time: 08:01:16 AM, 01 February 2021)

If the first moment ratio is equal to 0, then the distribution will be:

Select the correct option

- | | |
|----------------------------------|-------------------|
| <input type="radio"/> | Positively Skewed |
| <input type="radio"/> | Leptokurtic |
| <input type="radio"/> | Negatively Skewed |
| <input checked="" type="radio"/> | Symmetrical |

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Question # 8 of 10 (Start time: 08:01:33 AM, 01 February 2021)

What does it mean when a data set has a standard deviation equal to zero:

Select the correct option

- | | |
|----------------------------------|-------------------------------------------------------|
| <input type="radio"/> | Mean = median = mode |
| <input checked="" type="radio"/> | All of the values in the data are same |
| <input type="radio"/> | The mean of the data is also zero |
| <input type="radio"/> | All values of the data appear with the same frequency |

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Question # 9 of 10 (Start time: 08:01:49 AM, 01 February 2021)

The mean deviation of the normal distribution is approximately:

Select the correct option

- | | |
|----------------------------------|------------------|
| <input type="radio"/> | $7/8$ of the S.D |
| <input checked="" type="radio"/> | $4/5$ of the S.D |
| <input type="radio"/> | $3/4$ of the S.D |
| <input type="radio"/> | $1/2$ of the S.D |

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Question # 10 of 10 (Start time: 08:02:05 AM, 01 February 2021)

Total Marks:

A sales firm receives different calls from clients. If someone says, today it will receive "at most 3 calls". How many calls will be received?

Select the correct option

- | | | |
|----------------------------------|--------------------|----|
| <input type="radio"/> | 1, 2, 3 | // |
| <input checked="" type="radio"/> | 0, 1, 2, 3 | // |
| <input type="radio"/> | 3, 4, 5, ... | // |
| <input type="radio"/> | 0, 1, 2, 3, 5, ... | // |
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Thank you For Watching😊

Share with your fellows

rizwanqadeer848@gmail.com