

die

NetExam

Sri Lanka Institute of Information Technology

Q1
answered
out of
g question

Suppose in a town three candidates are running for the mayor's seat. To predict the winning candidate, a newspaper selects 25 registered voters randomly and the following info about each respondents' choice.

CCABCCBCBABCABAACCABABC

Choose the correct statement.

Select one:

- Population size is 25
- Sample size is not given
- Population is all registered voters in the town at the time of the study.
- Cannot identify a variable from the description
- None of the above

Next



The screenshot shows a web browser window with two tabs open:

- Course: Data Structures and Alg.**
- Course: Exam Navigator, Topic: netexam.sliit.lk/course/view.php?id=386**

The main content area displays a course navigation menu with the following items:

- Dashboard
- Examinations
- Lockdown Browser
- Practice Test

The "My courses" section shows the following courses:

- Data Structures and Algorithms - IT2070
 - Participants
 - Competencies
 - Grades
 - General
- Operating Systems and System Administration - IT2060
- Probability and Statistics - IT2110
- Lockdown Browser

The bottom portion of the screen shows a NetExam question page for Question 1:

Question 1
Not yet answered
Marked out of 3.00
Flag question

Assuming that the weekly demand for a video recorder is a poisson variable with mean 3, find the probability that the shop sells

at least 3 in a week.
at most 7 in a week.
more than 20 in a month.

A dropdown menu is open, showing the following options:

- Choose...
0.57681
0.9881
0.0351
0.08392
0.0116

On the right side of the screen, there is a sidebar with the following sections:

- Finish
- Time left
- QUEST
- 1
- 9
- 17
- 21

At the bottom right, there is a "FEEDBA" button.



Question 1
Not answered
Marked out of

Flag question

The number of industrial injuries per working week in a particular factory is known to follow a Poisson distribution with mean 0.5. Find the probability that,

in particular week there will be less than 2 accidents.

Choose... ▾

Choose... ▾

Choose... ▾

Choose... ▾

Choose... ▾

Choose... ▾

in particular week there will be more than 5 accidents.

in a 3 week period there will be no accidents.



Next page

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E(X) and $E(X^2)$ of a discrete random variable are -1.4 & 2 respectively. What is $V[X]$?

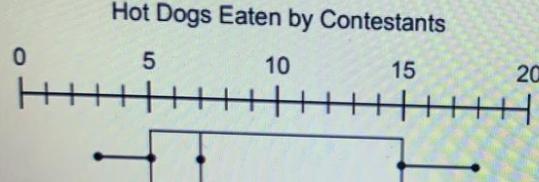
Select one:

- 0.4
- 0.4
- 1.4
- 0.04
- None of the above



1
Answered
out of
question

According to the box-and-whisker plot, what is the maximum number of hot dogs eaten in the hot dog eating contest?



Select one:

- 15
- 3
- 7
- 18
- 20



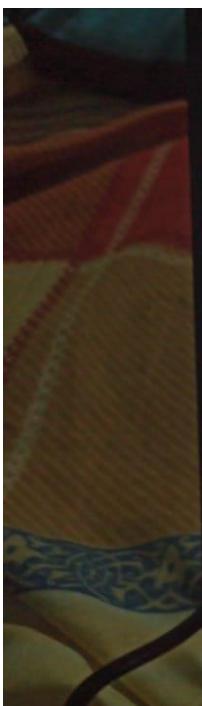
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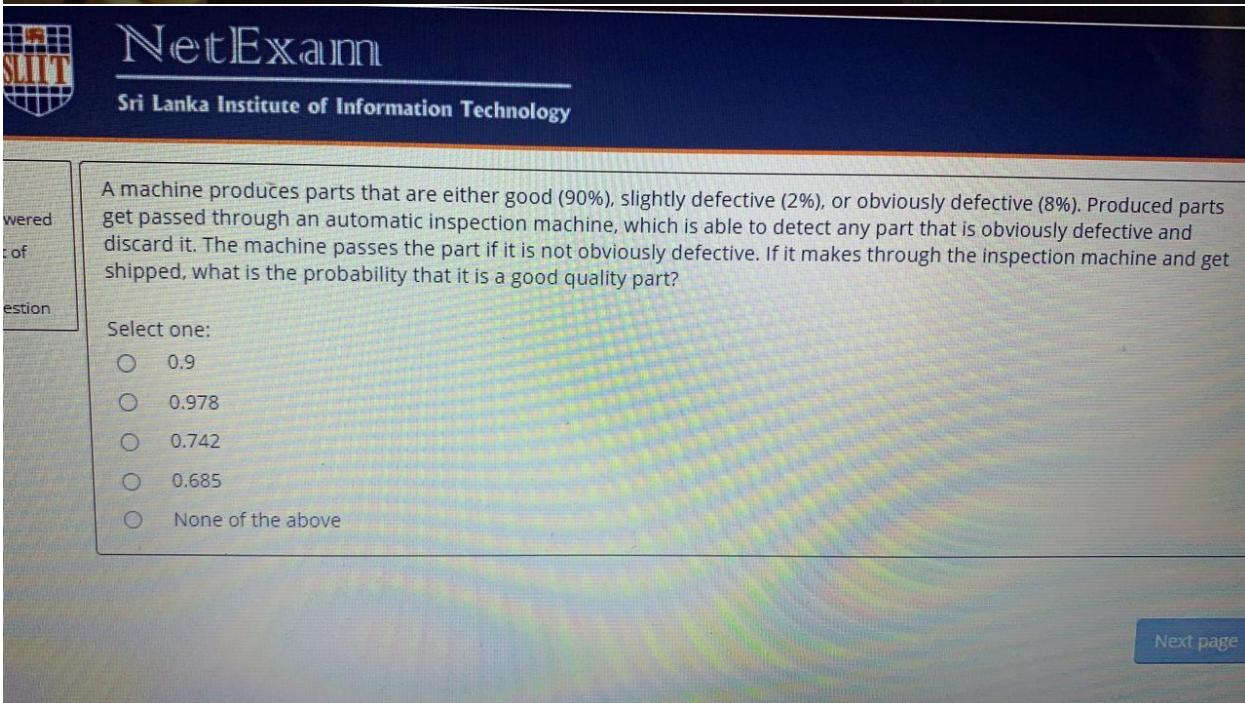
The statistic NOT required for a box plot is.

Select one:

- Mean
- 1st quartile
- Median
- 3rd quartile
- None of the above

Next p

A screenshot of a computer screen displaying a NetExam interface. The top header includes the SLIIT logo and the text "NetExam Sri Lanka Institute of Information Technology". A sidebar on the left shows "Question 3" status: "Not yet answered", "Marked out of 3.00", and a "Flag question" button. The main content area contains a math problem: "Consider a computer system with Poisson job-arrival stream at an average of 2 per minute. Determine the probability that in any one-minute interval there will be". Below the question are three options: "0 jobs", "exactly 2 jobs", and "at least 3 arrivals". A dropdown menu titled "Choose..." is open over the "exactly 2 jobs" option, showing the following values: "Choose...", 0.32332, 0.27067, 0.13534, 0.59399, and 0.86466. A cursor arrow points towards the "Next page" button in the bottom right corner.

A screenshot of a computer screen displaying a NetExam interface. The top header includes the SLIIT logo and the text "NetExam Sri Lanka Institute of Information Technology". A sidebar on the left shows "Answered 0 of 1 question". The main content area contains a math problem: "A machine produces parts that are either good (90%), slightly defective (2%), or obviously defective (8%). Produced parts get passed through an automatic inspection machine, which is able to detect any part that is obviously defective and discard it. The machine passes the part if it is not obviously defective. If it makes through the inspection machine and get shipped, what is the probability that it is a good quality part?". Below the question is a "Select one:" instruction followed by five options, each preceded by a radio button: "0.9", "0.978", "0.742", "0.685", and "None of the above". A cursor arrow points towards the "Next page" button in the bottom right corner.

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Let E be an event and E' is its complement. If $P(E) = 1/3$, what is $P(E')$?

Select one:

- $P(E') = P(E) = 1/3$
- $P(E') = P(E) - 1 = -2/3$
- $P(E') = 2 * P(E) = 2/3$
- $P(E') = 1 - P(E) = 2/3$
- None of the above

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Which of the following would fit the definition of "statistical independence" of events A and B?

Select one:

- $P(A \mid B) = P(A) + P(B)$
- $P(A \mid B) = P(A \text{ and } B)/P(B)$
- $P(A \mid B) = P(B)$
- $P(A \text{ and } B) = P(A)$
- None of the above

[Next page](#)

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What are the outliers for the given data set below.

7, 23, 26, 27, 28, 30, 31, 34, 34

Select one:

- 1, 3
- 31, 33
- 30, 31
- 1, 33
- No outliers

[Next](#)



Find $E(X)$ for the random variable X with table:

values of X: 1	3	5
$P(X=x)$:	1/6	1/6

Select one:

- 4
- 1
- 10
- 8
- None of the above



The probability of a machine producing a defective part is 0.04.

What is the probability of having exactly 5 defective parts, if it is selected from a sample of 100? (Round your answer upto 5 decimal places)

What is the rate of the occurrence in this distribution?

What is the variance of this distribution?

Choose... ▾

Choose...

- 0.36926
- 0.15629
- 0.47116
- 3.84
- 4



Next page

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Question 1
Not yet answered
Marked out of 1.00
 Flag question

Let A and B be events with $P(A^C) = 1/2$, $P(A \cup B) = 3/4$, $P(A|B)=1/3$ and $P(B^C) = 5/8$ where A^C is the complement of A. Then $P(A^C \cap B^C)$ is:

Select one:

1/8
 3/8
 6/8
 7/8
 None of the above

[Next page](#)

Sri Lanka Institute of Information Technology

To be an outlier for the following data set, data points should lie between,

18 44 47 55 61 62 78 79 83 145

Hint: Outlier is defined as a value x, holding the following conditions.
 $x > Q3 + 1.5 * (\text{Inter Quartile Range})$
 $x < Q1 - 1.5 * (\text{Inter Quartile Range})$

Lower bound

Upper bound

[Next page](#)

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A coin is tossed and a single 6-sided die is rolled. What is the probability of landing on the head side of the coin and rolling a 3 on the die?

Select one:

- 1/3
- 1/6
- 1/2
- 1/12
- None of the above

Next page

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Question 1
Not yet answered
Marked out of 3.00
[Flag question](#)

Assuming that the weekly demand for a video recorder is a poisson variable with mean 3, find the probability that the shop sells

at least 3 in a week.
at most 7 in a week.
more than 20 in a month.

Choose... 

- Choose...
- 0.57681
- 0.08392
- 0.0116
- 0.9881
- 0.03351

Next page

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5
Answered
out of
question

The probability that a patient recovers from a heart operation is 0.9. What is the probability that at least 2 of the next three patients who have this operation recover? (Don't use any approximation)

Select one:

- 0.8960
- 0.9720
- 0.7890
- 0.5960
- None of the above

Next page

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Question

Which of the following is **not** required for a binomial distribution?

Select one:

- Independent trials
- Constant probability of success
- At least fifty observations
- Fixed trials
- Only two outcomes

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Which of the following can be a probability function?

Select one:

- P(X)=1/2 for x=1,2,3
- P(x)=x/5 for x=1,2,3,4
- P(X)=x/2 for x=0,1,2
- P(x)=1/5 for x=0,2,3
- None of the above

NetExamination
Sri Lanka Institute of Information Technology

Determine the value of k so that the function $P(X=x) = kx$ for $x=1,2,3,4,5,6$ can serve as a probability distribution for a discrete random variable X .

Select one:

- $3/21$
- $5/21$
- $1/21$
- $2/21$
- None of the above

Sri Lanka Institute of Information Technology

Question 4
Not yet answered
Marked out of 1.00
Flag question

According to the box-and-whisker plot, what is the third quartile of gallons of paint sold at John's Hardware Store in a month?

Paint Sold Per Month at John's (in gallons)

Select one:

- 66
- 61
- 60
- 62
- 58

Moodle

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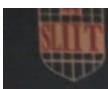
Question 3
Not yet answered
Marked out of 1.00
Flag question

A medical treatment has a success rate of 0.8. Two patients will be treated with this treatment. Assuming the results are independent for the two patients, what is the probability that neither one of them will be successfully cured?

Select one:

- 0.5
- 0.36
- 0.2
- 0.04
- None of the above

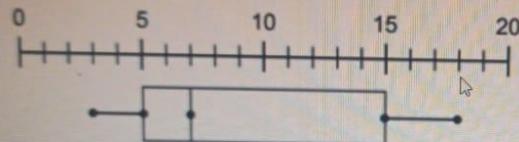
Next page



in 6
answered
out of
g question

According to the box-and-whisker plot, what is the maximum number of hot dogs eaten in the hot dog eating contest?

Hot Dogs Eaten by Contestants



Select one:

- 20
- 18
- 7
- 3
- 15



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estion

A and B are two events. $P(A \text{ and } B)$ ' is equal to;

Select one:

- $P(A' \text{ or } B)$
- $P(A \text{ and } B')$
- $P(A' \text{ and } B')$
- $P(A' \text{ or } B')$
- None of the above.



Question 4

Not yet answered

Marked out of
1.00

Flag question

The best sample is one that is,

Select one:

- A systematic sample
- Representative of the population
- Convenient
- judgmentally selected
- Non-random sample



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Question 1

yet answered

marked out of

Flag question

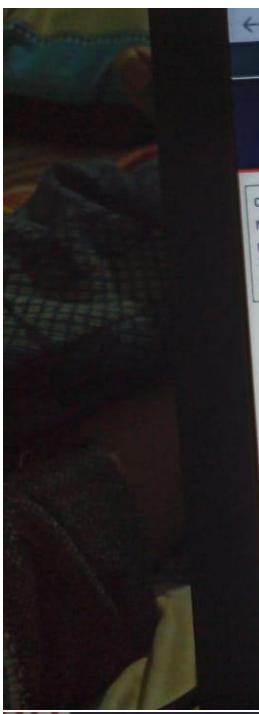
The below transformation is applied to a data set

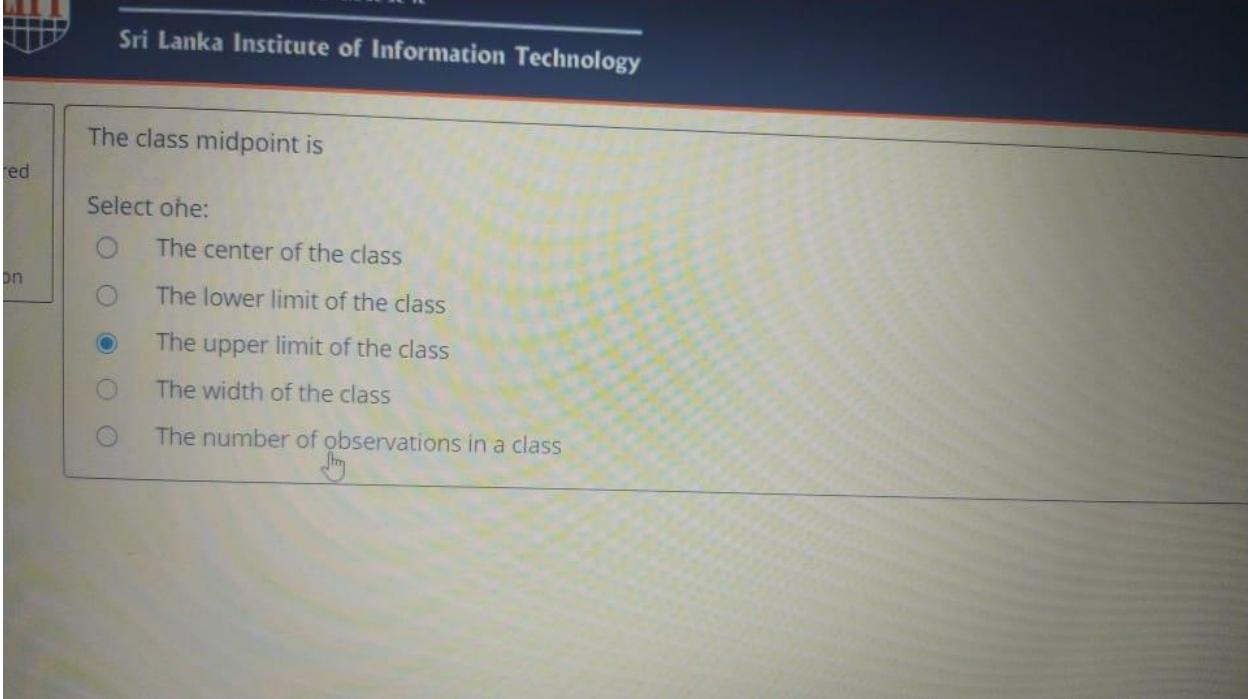
$$Y = 3X + 4$$

Where X is old data and Y is New data. If the variance of the old

Select one:

- 49
- 5
- 9
- 45
- None of the above

A screenshot of a computer screen displaying a NetExam interface. The top bar shows the SLIT logo and the text "NetExam Sri Lanka Institute of Information Technology". A sidebar on the left indicates "Question 6 Not yet answered Marked out of 2.00" and a "Flag question" button. The main content area contains a math problem: "When Joe bowls, he can get a strike (knock down all of the pins) 60% of the time. Assuming that all trials are independent and identical what is the probability for him to bowl zero strikes out of four tries?". Below the question are five options for selection: "512/10000", "256/1000", "256/100000", "128/10000", and "None of the above". A blue arrow points to the third option, "256/10000".

A screenshot of a computer screen displaying a Sri Lanka Institute of Information Technology page. The header features the SLIT logo and the text "Sri Lanka Institute of Information Technology". The main content area contains a question: "The class midpoint is". Below it is a list of five options for selection: "The center of the class", "The lower limit of the class", "The upper limit of the class", "The width of the class", and "The number of observations in a class". The fourth option, "The width of the class", has a blue arrow pointing to it.

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The below transformation is applied to a data set.

$Y = 2X + 3$, where X is the old data and Y is the new data.

If the variance of the first data set is 7 then what is the variance of the new data set.

Select one:

- 24
- 28
- 14
- 7
- None of the above

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This stem and leaf plot shows the number of cookies that Tia's Girl Scout troop sold each week. How many weeks did they sell cookies?

Time left
QUESTIONS
1 2 3 4
9 10 11 12 13 14
17 18 19 20
FEEDBACK
21

Next page

Stem | Leaf
5 | 1 1 4
6 | 4 5 6
7 | 2 2
8 | 3 6 7 7

Select one:

- 4
- 87
- 12
- 51
- The Stem and leaf plot do not say.

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What are the outliers for the given data set below. It found that Q1 = 24.5, Q2 = 28 and Q3 = 32.5 for the data set.
7, 23, 26, 27, 28, 30, 31, 34, 34

Select one:

23
 7
 34
 26
 No outliers

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A study is under way in to determine the adult height of American pine trees. Specifically, the study is attempting to determine what factors aid a tree in reaching heights greater than 60 feet tall. It is estimated that the forest contains 25,000 adult American pines. The study involves collecting heights from 250 randomly selected adult American pine trees and analyzing the results. Identify the sample in the study.

Select one:

- The 250 randomly selected adult American pine trees.
- The 25,000 adult American pine trees in the forest.
- All the adult American pine trees taller than 60 feet.
- All American pine trees, of any age, in the forest.
- None of the above.

[Next pa](#)

it20236182 Bandara P...

NetExam

Sri Lanka Institute of Information Technology

The probability that a patient recovers from a heart operation is 0.9. What is the probability that at least 2 of the next three patients who have this operation recover? (Don't use any approximation)

Select one:

- 0.8960
- 0.9720
- 0.7890
- 0.5960
- None of the above

Next page

Quiz navigation

Finish attempt ...

Time left 0:49:01

QUESTIONS

1	2	3	4	5
9	10	11	12	13
17	18	19	20	

FEEDBACK

21

SLIIT

Sri Lanka Institute of Information Technology

The type of sampling in which each member of the population selected for the sample is returned to the population before the next member is selected is called.

Select one:

- Sampling without replacement
- Sampling with replacement
- Simple random sampling
- Systematic sampling
- None of the above

Next page

Moodle

NetExam

Sri Lanka Institute of Information Technology

Question 2
Not yet answered
Marked out of 2.00
Flag question

Which of the following is **not** required for a binomial distribution?

Select one:

- Independent trials
- At least fifty observations
- Fixed trials
- Only two outcomes
- Constant probability of success

Next p

NetExam

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on 7
t answered
d out of
g question

This stem and leaf plot shows the scores of students for a test given out of 100. How many students scored more than 75 marks?

Stem	Leaf
5	2, 6, 6, 8
6	0, 1, 4, 9
7	1, 1, 2, 4, 6, 6, 7
8	0, 0, 3, 4, 5, 5, 7, 8, 9
9	0, 1, 1, 2, 6, 9

Select one:

- 12
- 2
- 6
- 18
- 8

Question 4

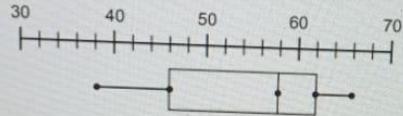
Not yet answered

Marked out of
1.00

 Flag question

According to the box-and-whisker plot, what is the third quartile of gallons of paint sold at John's Hardware Store?

Paint Sold Per Month at John's (in gallons)



Select one:

- 60
- 61
- 66
- 62
- 58

What are the outliers for the given data set below.

7, 23, 26, 27, 28, 30, 31, 34, 34

Select one:

- 1,3
- 31, 33
- 30, 31
- 1, 33
- No outliers



Sri Lanka Institute of Information Technology

A numerical value used as a summary measure for a sample, such as sample mean, is known as a,

Select one:

- Population parameter
- Sample parameter
- Sample statistic
- Population mean
- None of the above

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Question 10
Not yet answered
Marked out of 1.00
Flag question

Suppose in a town three candidates are running for the mayor's seat. To predict the winning candidate, a newspaper selects 25 registered voters randomly and the following info about each respondents' choice.
C C A B C C B C B A B C A B A C C A B A B C C

Choose the correct statement.

Select one:

- Population size is 25
- Sample size is not given
- Population is all registered voters in the town at the time of the study.
- Cannot identify a variable from the description
- None of the above

Next page

Quiz navigation
Finish attempt ...
Time left 0:34:39
QUESTIONS

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	

FEEDBACK

21

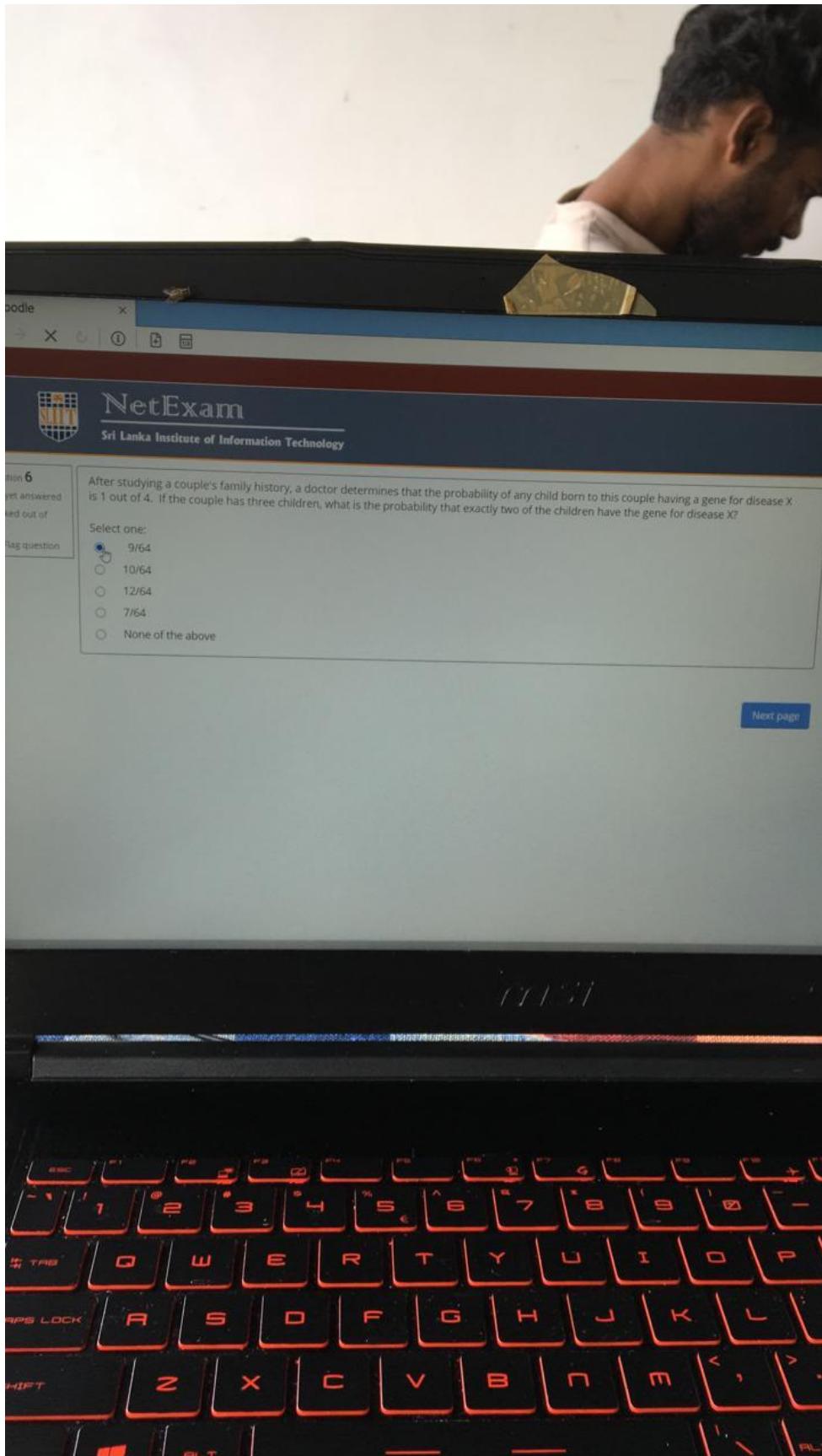
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Sri Lanka Institute of Information Technology

Question 9
Not yet answered
Marked out of 1.00
Flag question

The tallest bar in a histogram represents?

Select one:

- The class with the highest cumulative frequency
- The class with the lowest relative frequency
- The class with the highest frequency
- The class with the lowest frequency
- None of the above





A garment factory produces large lots of a certain type of garments. What is the mean of the number of defective units found in a sample of 10 units if the lot is 2% defective?

Select one:

- 5
- 2
- 0.2
- 0.98
- None of the above

Next >

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When each member of a population has an equally likely chance of being selected, this is called:

Select one:

- A nonrandom sampling method.
- A quota sample.
- A judgement sampling
- A simple random sample.
- None of the above.

1 2 3 4 5 6 7 8 9 0

@ # \$ % ^ & * ()

/W /E R T Y U I O

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Let E be an event and E' its complement. If $P(E) = 1/3$, what is $P(E')$?

Select one:

- $P(E') = P(E) = 1/3$
- $P(E') = P(E) - 1 = -2/3$
- $P(E') = 2 * P(E) = 2/3$
- $P(E') = 1 - P(E) = 2/3$
- None of the above



Roll a fair die twice. Let X be the random variable that gives the absolute value of the differences between the two numbers.

$$X = | \text{value of roll 1} - \text{value of roll 2} |$$

Then what is the $P(X=1)$?

Select one:

- 1/6
- 10/36
- 8/36
- 9/36
- 2/36

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7
answered
out of
question

In an experiment of rolling two dice, the first die shows a ONE and the other die rolls under the table and you cannot see it. Now, what is the probability that both die show ONE?

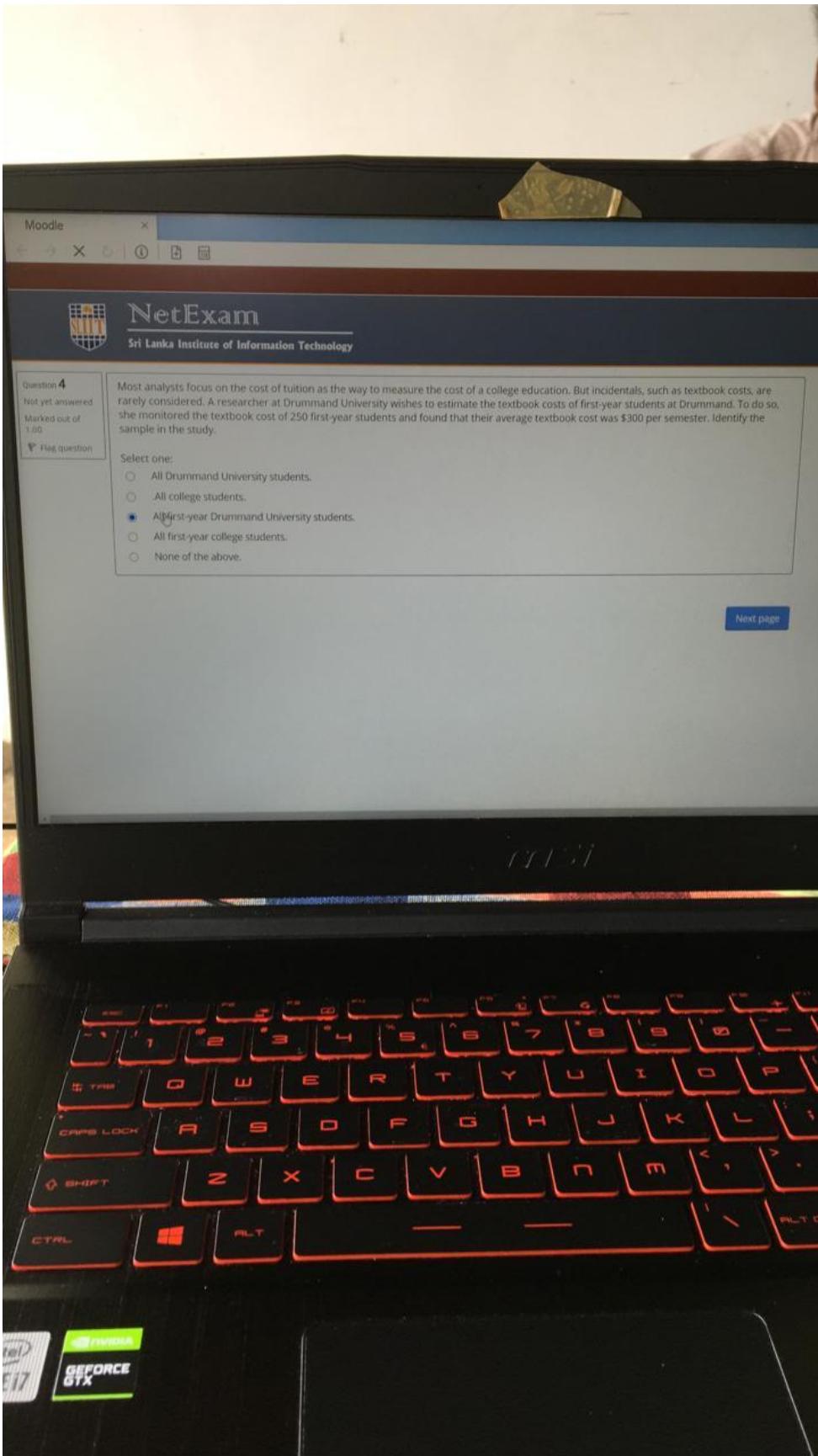
Select one:

- 1/3
- 1/6
- 1/36
- 9/36
- None of the above

The class midpoint is

Select one:

- The center of the class
- The width of the class
- The upper limit of the class
- The number of observations in a class
- The lower limit of the class



it19526430 Wijesiriwardena

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A and B are two events. $P(A \text{ and } B)$ ' is equal to:

Select one:

- P(A' or B)
- P(A and B')
- P(A' and B')
- P(A' or B')
- None of the above.

Next page

Quiz navigation

Finish attempt ...
Time left 1:02:35
QUESTIONS
1 2 3 4
9 10 11 12
17 18 19 20
FEEDBACK
21

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Question 2
Not yet answered
Marked out of 1.00
 Flag question

Which of the following is not a form of non-probability sampling?

Select one:

- Quota sampling.
- Convenience sampling.
- Cluster sampling.
- Purposive/Judgement sampling.
- They are all forms of non-probability sampling.

Question 1
Not yet answered
Marked out of 1.00
Flag question

The conditional probability of x given y is:

Select one:

- the probability that x and y occur jointly
- the probability that y occurs if x has already occurred
- the probability that x occurs if y has already occurred
- the marginal probability of x minus the marginal probability of y
- None of the above

Next page



NetExams

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Sampling in which a sampling unit can be repeated more than once is called,

Select one:

- Sampling without replacement
- Simple sampling
- Sampling with replacement
- Repeated sampling
- None of the above



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ation

Consider the following probability function

$P(X=x)=cx^2$; $x=3,4,5$, where c is positive constant. Find c .

Select one:

- 0.2
- 0.2
- 0.02
- 2
- None of the above



Your neighbor has 2 children. You learn that he has a son, Joe. What is the probability that Joe's sibling is a brother? (Assume that boys and girls are equally likely).

Select one:

- 1/4
- 1/5
- 1/3
- 1/2
- None of the above



PREV PAGE

X	-10	-20	30
P(X)	1/5	3/10	1/2

Let X be a random variable with the probability distribution given above. The mean of $g(X) = 2X$ is:

Select one:

- 1
- 7
- 14
- 1
- None of the above

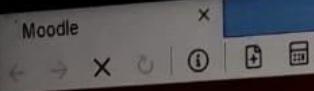
Consider the following discrete probability distribution for the random variable X .

X	0	1	2
$P(X=x)$	a	b	0.4

If the mean of X is 1 then,

Select one:

- $a=0.3$ and $b=0.1$
- $a=0.2$ and $b=0.4$
- $a=0.4$ and $b=0.2$
- $a=0.2$ and $b=0.2$
- $a=0.1$ and $b=0.5$



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Question 3

Not yet answered

Marked out of 1.00

Flag question

A medical treatment has a success rate of 0.8. Two patients will be treated with this treatment. If both patients are successfully treated, what is the probability that neither one of them will be successfully treated?

Select one:

- 0.5
- 0.36
- 0.2
- 0.04
- None of the above



If the number of arrivals in a queue is 10 per hour on average, determine the probability that, in any hour there will be

0 arrivals

Choose...

6 arrivals

Choose...

more than 6 arrivals

Choose...

Quiz n

Finish attempt

Time left 0:27:5

QUESTIONS

1 2 3

9 10 11

17 18 19

FEEDBACK

21

Next page



NetExam

Sri Lanka Institute of Information Technology

Answered

of

question

μ is an example of a

Select one:

- population parameter
- sample statistic
- population variance
- sample variance
- None of the above

it170

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Question 5
Not yet answered
Marked out of 3.00
 Flag question

In a district, the probability of having a power cut in a house will be 0.003.

What is the probability that 10 houses having the power cut, out of 1000 houses in this district? (Give your answer up to 5 decimal places)

What is the variance of this distribution?

What is the rate of the occurrence in this distribution?

Choose...
Choose...
0.20018
0.00081
4.5
3
0.61110

Next page

Finish a
Time le
QUESTI
1
9
17
1
FEEDBA
21

Sri Lanka Institute of Information Technology

Question 12
Not yet answered
Marked out of 2.00
 Flag question

Consider the following discrete probability distribution for the random variable X .

X	1	2	3	4	5
$P(X=x)$	p	$2p$	$3p$	$4p$	$5p$

The mean of X is,

Select one:

2
 3
 3.5
 3.67
 5.21

Next page

The screenshot shows a computer screen displaying a software application titled "NetExam" from "Sri Lanka Institute of Information Technology". The main window contains a question: "Which of the following is **not** required for a binomial distribution?". Below the question, the instruction "Select one:" is followed by a list of five options, each preceded by a radio button. The options are: "Fixed trials", "Constant probability of success", "Independent trials", "Only two outcomes", and "At least fifty observations". The fifth option, "At least fifty observations", has a blue dot next to it, indicating it is the selected answer.

NetExam

Sri Lanka Institute of Information Technology

Which of the following is **not** required for a binomial distribution?

Select one:

- Fixed trials
- Constant probability of success
- Independent trials
- Only two outcomes
- At least fifty observations

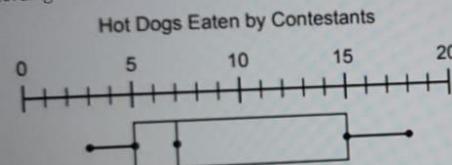


Question 4

Not yet answered

Marked out of
1.00 Flag question

According to the box-and-whisker plot, what is the maximum number of hot dogs eaten in the hot dog eating contest?



Select one:

- 18
- 7
- 3
- 20
- 15

 Next page

Question 1

Not yet answered

Marked out of
2.00 Flag question

Consider the following probability

$$P(X=x) = (1/12)^* x, \text{ for } x=3,4,5$$

Find the expected value

Select one:

- 3
- 0.3
- 4.28
- 2.5
- None of the above

 Next page

In a district, the probability of having a power cut in a house will be 0.0015.

What is the probability that at most 12 houses having the power cut, out of 3000 houses in the district? (Give your answer to 5 decimal places)

0.99919

What is the variance of this distribution?

4.5

What is the rate of the occurrence in this distribution?

0.00240

[Next page](#)



Question 4

1 answered

1 out of

3 question

$P(A)=3/8, P(B)=5/8,$ and $P(A \cup B)=3/4,$ Find $P(A \cap B)$

Select one:

- 1/5
- 1/4
- 1/8
- 3/8
- None of the above



A numerical value used as a summary measure for a sample, such as sample mean, is known as a,

Select one:

- Population parameter
- Sample parameter
- Sample statistic
- Population mean
- None of the above

iddle X

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 NetExam
Sri Lanka Institute of Information Technology

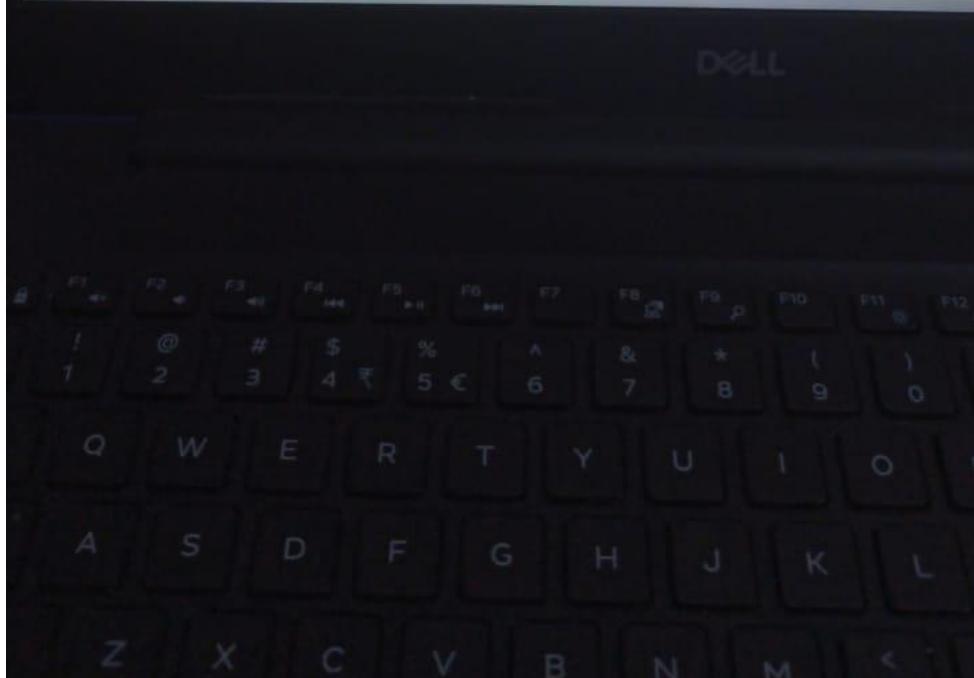
Question 2
yet answered
Marked out of 0
Flag question

This stem and leaf plot shows the number of cookies that Tia's Girl Scout troop sold each week. How many weeks did they sell 12 cookies?

Stem	Leaf
5	1 1 4
6	4 5 6
7	2 2
8	3 6 7 7

Select one:

4
 87
 12
 51
 The Stem and leaf plot do not say.





This stem and leaf plot shows the scores of students for a test given out of 100. How many students scored more than 75 marks?

Stem	Leaf
5	2, 6, 6, 8
6	0, 1, 4, 9
7	1, 1, 2, 4, 6, 6, 7
8	0, 0, 3, 4, 5, 5, 7, 8, 9
9	0, 1, 1, 2, 6, 9

Select one:

- 6
- 18
- 8
- 12
- 2

 NetExam
Sri Lanka Institute of Information Technology

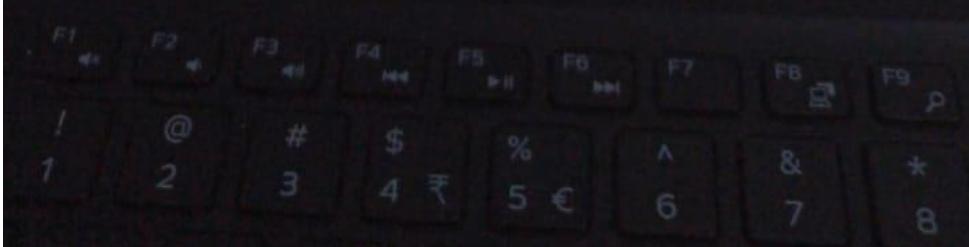
3 answered out of 1 question

Which of the following is a discrete quantitative variable?

Select one:

- The Dow Jones Industrial (stock market) average.
- The volume of water released from a dam.
- The distance you drove yesterday.
- The number of employees of an insurance company
- None of the above.

DELL





2
Answered
out of
question

Which of the following is **not** required for a binomial distribution?

Select one:

- Constant probability of success
- At least fifty observations
- Fixed trials
- Only two outcomes
- Independent trials

 NetExam
Sri Lanka Institute of Information Technology

Find $E(X)$ for the random variable X with table:

values of X :	1	3	5
$P(X=x)$:	$1/6$	$1/6$	$2/3$

Select one:

4
 1
 10
 8
 None of the above

 NetExam
Sri Lanka Institute of Information Technology

Consider the following probability
 $P(X=x) = (1/12) * x$, for $x=3,4,5$

Find the expected value

Select one:

- 3
- 0.3
- 4.28
- 2.5
- None of the above

Submit

The screenshot shows a computer screen displaying a web-based examination system. At the top, there is a blue header bar with several icons: a magnifying glass, a gear, a person icon, a plus sign, and a document icon. Below this is a dark blue navigation bar featuring the "NetExam" logo, which includes a stylized graphic of vertical bars in orange, yellow, and white, followed by the word "NetExam" in a serif font. Underneath the logo, the text "Sri Lanka Institute of Information Technology" is displayed in a smaller, bold, sans-serif font.

The main content area is a white rectangular box containing a question and a list of five options. The question reads: "Which of the following is a discrete quantitative variable?". Below the question, the instruction "Select one:" is followed by five radio button options:

- The Dow Jones Industrial (stock market) average .
- The volume of water released from a dam.
- The distance you drove yesterday.
- The number of employees of an insurance company
- None of the above.

A small cursor arrow is visible at the bottom center of the screen, pointing downwards.



NetExam

Sri Lanka Institute of Information Technology

swered
nt of
estion

The class midpoint is

Select one:

- The width of the class
- The upper limit of the class
- The number of observations in a class
- The center of the class
- The lower limit of the class



Next page

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it20155520 Amanull



NetExam

Sri Lanka Institute of Information Technology

Question 7
yet answered
marked out of
0
Flag question

If we took the 500 people attending a school in Colombo, divided them by gender, and then took a random sample of the males and a random sampling of the females, the variable on which we would divide the population is called the.

Select one:

- Independent variable.
- Dependent variable.
- Stratification variable.
- Sampling variable.
- None of the above.

☰ Quiz navigation

Finish attempt ...

Time left 0:55:52

QUESTIONS

1	2	3	4
9	10	11	12
17	18	19	20

FEEDBACK

21

Next page



tion 4

yet answered

ked out of

Flag question

X	-10	-20	30
P(X)	1/5	3/10	1/2

Let X be a random variable with the probability distribution given above. The mean of $g(X) = 2X$ is:

Select one:

- 1
- 7
- 14
- 1
- None of the above

NetExam

Suppose 2% of the bolts produced by a factory are defective. In a shipment of 3600 bolts from the factory, find the mean number of defective bolts and the standard deviation without using any approximation.

Select one:

- Mean = 72, standard deviation = 70.56
- Mean = 72, standard deviation = 8.4
- Mean = 720, standard deviation = 24
- Mean = 720, standard deviation = 576
- None of the above

Next page

X | O | I | H | C

 NetExam
Sri Lanka Institute of Information Technology

Which of the following sampling techniques is an **equal probability selection method** (EPSEM) in which every individual in the population has an equal chance of being selected?

Select one:

- Simple random sampling.
- Systematic sampling.
- Proportional stratified sampling.
- Cluster sampling.
- All of the above are EPSEM.

[Next page](#)



Sri Lanka Institute of Information Technology

Suppose in a town three candidates are running for the mayor's seat. To predict the winning candidate, 100 voters were selected and the following info about each respondents' choice.

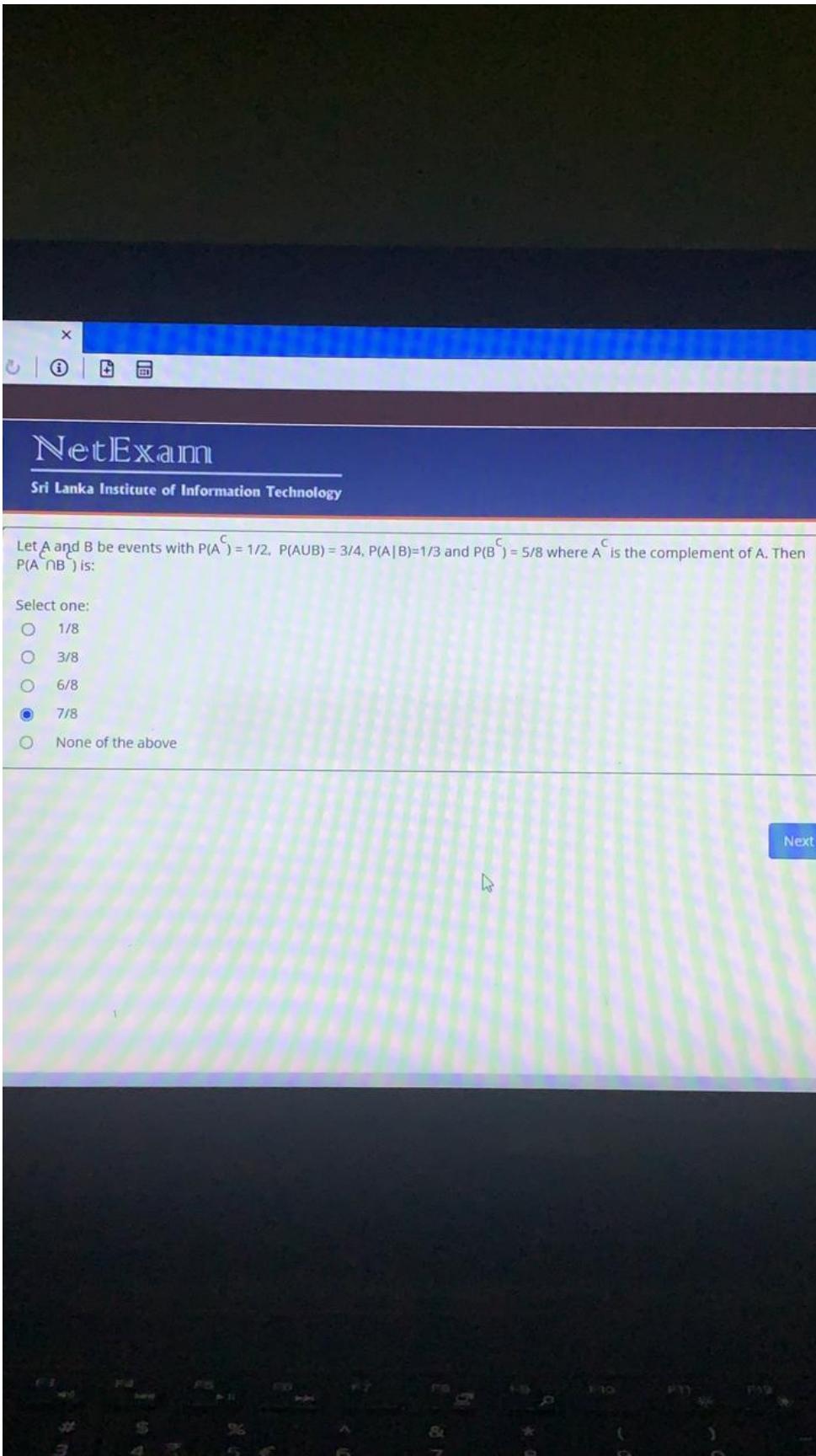
CC A B C C B C B A B C A B A C C A B A B C C

Choose the correct statement.

Select one:

- Population size is 25
- Sample size is not given
- Population is all registered voters in the town at the time of the study.
- Cannot identify a variable from the description
- None of the above

DELL

A screenshot of a computer monitor displaying a web-based examination system. The browser window has a blue header bar with standard icons. The main content area is titled "NetExam" and "Sri Lanka Institute of Information Technology". Below the title, there is a math problem: "Let A and B be events with $P(A^C) = 1/2$, $P(A \cup B) = 3/4$, $P(A | B) = 1/3$ and $P(B^C) = 5/8$ where A^C is the complement of A. Then $P(A \cap B)$ is:". Below the question, it says "Select one:" followed by five options: "1/8", "3/8", "6/8", "7/8", and "None of the above". The option "7/8" is selected with a blue radio button. At the bottom right of the window, there is a blue "Next page" button. The bottom edge of the monitor shows the Windows taskbar with various pinned icons.

Let A and B be events with $P(A^C) = 1/2$, $P(A \cup B) = 3/4$, $P(A | B) = 1/3$ and $P(B^C) = 5/8$ where A^C is the complement of A . Then $P(A \cap B)$ is:

Select one:

1/8
 3/8
 6/8
 7/8
 None of the above

[Next page](#)

 NetExam
Sri Lanka Institute of Information Technology

1
answered
3 out of
8 question

When arranging data into classes it is suggested that you have

Select one:

- Between 5 and 10 classes
- Always only 5 classes
- More than 20 classes
- Less than 5 classes
- Between 20 and 40 classes

F1 F2 F3 F4 F5 F6 F7 F8 F9

! @ # \$ % ^ _

The class midpoint is

Select one:

- The center of the class
- The width of the class
- The upper limit of the class
- The number of observations in a class
- The lower limit of the class



Answered
out of
question

A number calculated with complete population data and quantifies a characteristic of the population is called which of the following?

Select one:

- A datum
- A parameter
- A statistic
- A population
- None of the above

Next Page



d

Sample mean and the median of the following data are respectively given by

-1, 2, 0, 3, 3, 4, 2

Select one:

- 2 and 1.875
- 1.8571 and 2
- 1.7209 and 1.9863
- 1.574 and 2
- None of the above



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 NetExam

Sri Lanka Institute of Information Technology

5
Answered
out of
question

What are the outliers for the given data set below.
7, 23, 26, 27, 28, 30, 31, 34, 34

Select one:

1, 3

31, 33

30, 31

1, 33

No outliers

it170

NetExam
Sri Lanka Institute of Information Technology

5 answered out of 18 question

In a district, the probability of having a power cut in a house will be 0.003.

What is the probability that 10 houses having the power cut, out of 1000 houses in this district? (Give your answer up to 5 decimal places)

What is the variance of this distribution?

What is the rate of the occurrence in this distribution?

Choose... Choose...
0.20018
0.00081
4.5
3
0.61110

Next page

Finish attempt

Time left 00:00:00

QUESTION

1 2
9 10
17 18

NetExam

Sri Lanka Institute of Information Technology

Consider the following probability function
 $P(X=x)=cx^2$; $x=3,4,5$, where c is positive constant. Find c.

Select one:

- 0.2
- 0.2
- 0.02
- 2
- None of the above

NetExam
Sri Lanka Institute of Information Technology

If the number of arrivals in a queue is 10 per hour on average, determine the probability that, in any hour there will be

0 arrivals Choose... ▾

6 arrivals Choose... ▾

more than 6 arrivals Choose... ▾

Choose... ▾

- 0.93291
- 0.06305
- 0.00005
- 0.86986

New

NetExam
Sri Lanka Institute of Information Technology

Question 8
Not yet answered
Marked out of 1.00
 Flag question

Since the population size is always larger than the sample size, the sample statistic

Select one:

- can never be larger than the population parameter
- can never be equal to the population parameter
- some cases it can be equal to the population parameter
- can never be smaller than the population parameter
- None of the above

Next page

Finish attempt ...
Time left 0:30:18
QUESTIONS
1 2 3
8 9 10
15 16 17
FEEDBACK
21



red
t
ation

Most analysts focus on the cost of tuition as the way to measure the cost of a college education. But *incidentals*, such as textbook costs, are rarely considered. A researcher at Drummand University wishes to estimate the textbook costs of first-year students at Drummand. To do so, she monitored the textbook cost of 250 first-year students and found that their average textbook cost was \$300 per semester. Identify the variable of interest to the researcher.

Select one:

- The textbook cost of first-year Drummand University students.
- The year in school of Drummand University students.
- The age of Drummand University students.
- The cost of incidental expenses of Drummand University students.
- None of the above.

[Next page](#)



Question 11

Not yet answered
Marked out of
1.00

Flag question

What is the probability that the sum of two die will be greater than 8, given that the first die is 6?

Select one:

- 1/2
- 3/4
- 2/3
- 7/12
- None of the above

**Question 5**

Not yet answered
Marked out of
0.00

Flag question

Select the correct answer from the below description

A survey conducted by a statistician interviewed 200 young men who didn't go to university. Of those who took restaurant jobs, one in two reached a higher level job and one in four reached a managerial position.

Select one:

- 200 young men are the population of interest
- The variable of interest is a qualitative variable.
- 25% is the population proportion of those who reached the managerial position.
- The sample size is not given in the description
- None of the above



Next page

A dresser drawer contains one pair of socks with each of the following colours: blue, brown, red, white and black. Each pair is folded together in a matching set. You reach into the sock drawer and choose a pair of socks without looking. You replace this pair and then choose another pair of socks. What is the probability that you will choose the red pair of socks both times?

Select one:

- 1/5
- 1/25
- 1/10
- 1/15
- None of the above



Next page



A personal computer user survey was conducted. Time of personal computer use per week is an example of a

Select one:

- Discrete numerical variable
- Continuous numerical variable
- Nominal categorical variable
- Ordinal categorical variable
- None of the above.



Answered
of
question

The statistics course consists of two (2) online quizzes. 22% of the class passed both tests and 41% of the class passed the first test. About what percent of those who passed the first test also passed the second test? (Round up the answer to the nearest integer)

Select one:

- 54%
- 20%
- 3%
- 24%
- None of the above

Quiz na

Finish attempt

Time left 0:28:0

QUESTIONS

1 2 3

9 10 11

17 18 19

FEEDBACK

21

Next page



Answered
part of
question

Let A and B be events with $P(A^C) = 1/2$, $P(A \cup B) = 3/4$, $P(A|B) = 1/3$ and $P(B^C) = 5/8$ where A^C is the complement of A. Then $P(A \cap B^C)$ is:

Select one:

- 1/8
- 3/8
- 6/8
- 7/8
- None of the above

[Next page](#)

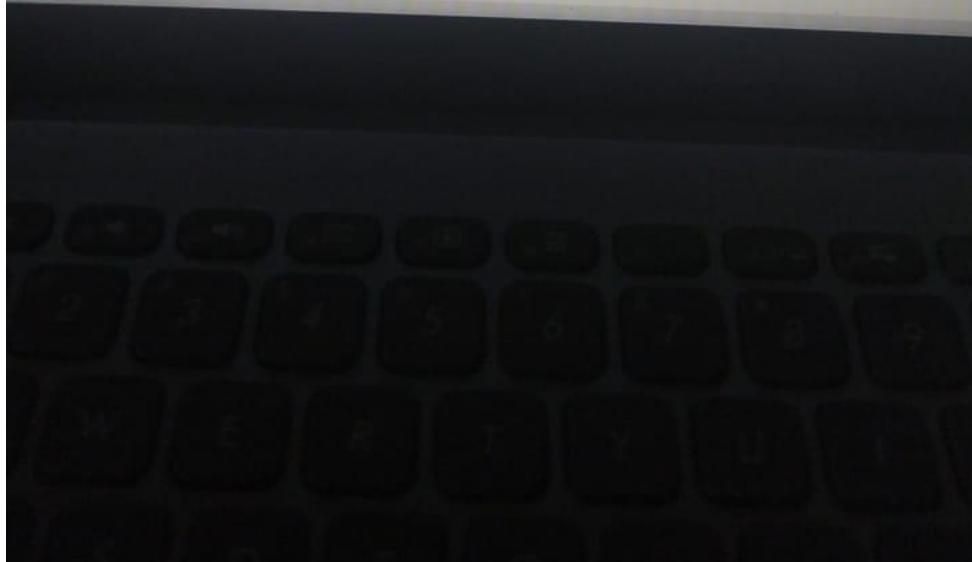
FE
21

NetExam
Sri Lanka Institute of Information Technology

What is the probability that the sum of two die will be greater than 8, given that the first die is 6?

Select one:

- 1/2
- 3/4
- 2/3
- 7/12
- None of the above



Question 12

Let A and B be events with $P(A^C) = 1/2$, $P(A \cup B) = 3/4$, $P(A|B) = 1/3$ and $P(B^C) = 5/8$ where A^C is the complement of A. Then $P(A \cap B)$ is:

Select one:

- 1/8
- 3/8
- 6/8
- 7/8
- None of the above

[Next page](#)

Question 13

Not yet answered

Marked out of 1.00

Flag question

 NetExam
Sri Lanka Institute of Information Technology

It20125066 Chandrasena A.P.M.

At a certain school, 18% of all students play football and basketball and 32% of all students play football. What is the probability that a student plays basketball given that the student plays football? (Round up the answer to the nearest integer)

Select one:

- 56%
- 178%
- 50%
- 32%
- None of the above

[Next page](#)

≡ Quiz navigation

Finish attempt ...

Time left 0:24:21

QUESTIONS

1	2	3	4
8	9	10	11
15	16	17	18

FEEDBACK

21

NetExam
Sri Lanka Institute of Information Technology

When Joe bowls, he can get a strike (knock down all of the pins) 60% of the time. Assuming that all trials are independent and identical what is the probability for him to bowl zero strikes out of four tries?

Select one:

- 512/10000
- 256/1000
- 256/10000
- 128/10000
- None of the above

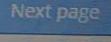
 Next

NetExam
Sri Lanka Institute of Information Technology

A garment factory produces large lots of a certain type of garments. What is the mean of the number of defective units found in a sample of 10 units if the lot is 2% defective?

Select one:

- 5
- 2
- 0.2
- 0.98
- None of the above

According to the box-and-whisker plot, what is the maximum number of hot dogs eaten in the hot dog eating contest?

Hot Dogs Eaten by Contestants

Select one:

18
 20
 15
 7
 3

[Next page](#)

The keyboard in the foreground is a black Acer keyboard with white lettering. The keys visible include W, E, R, T, Y, U, I, O, P, S, D, F, G, H, J, K, L, X, C, V, B, N, M, Alt, Alt Gr, and Ctrl.



Question 15

Not yet answered

Marked out of
3.00

Flag question

If the number of arrivals in a queue is 10 per hour on average, determine the probability that, in any hour there will be

0 arrivals

Choose... ▾

Choose...

0.86986

0.00005

0.93291

0.06305

6 arrivals

more than 6 arrivals



Next page

The probability of a machine producing a defective part is 0.02.

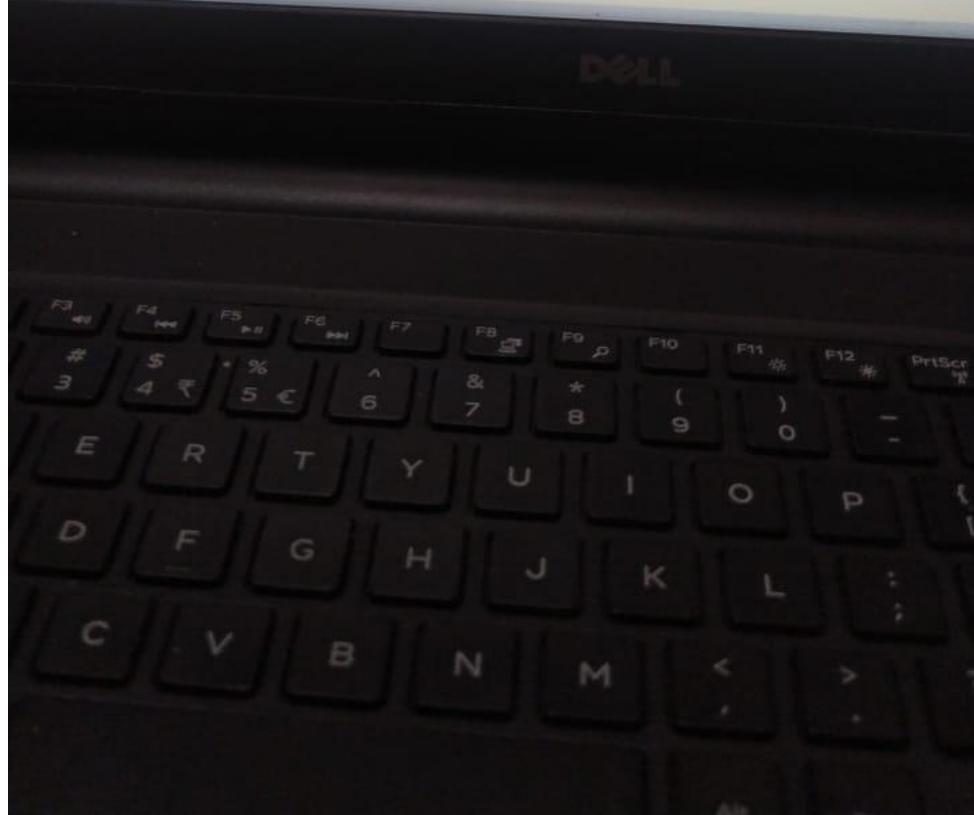
What is the probability of having more than 5 defective parts, out of a sample of 200? (Round your answer upto 5 decimal places)

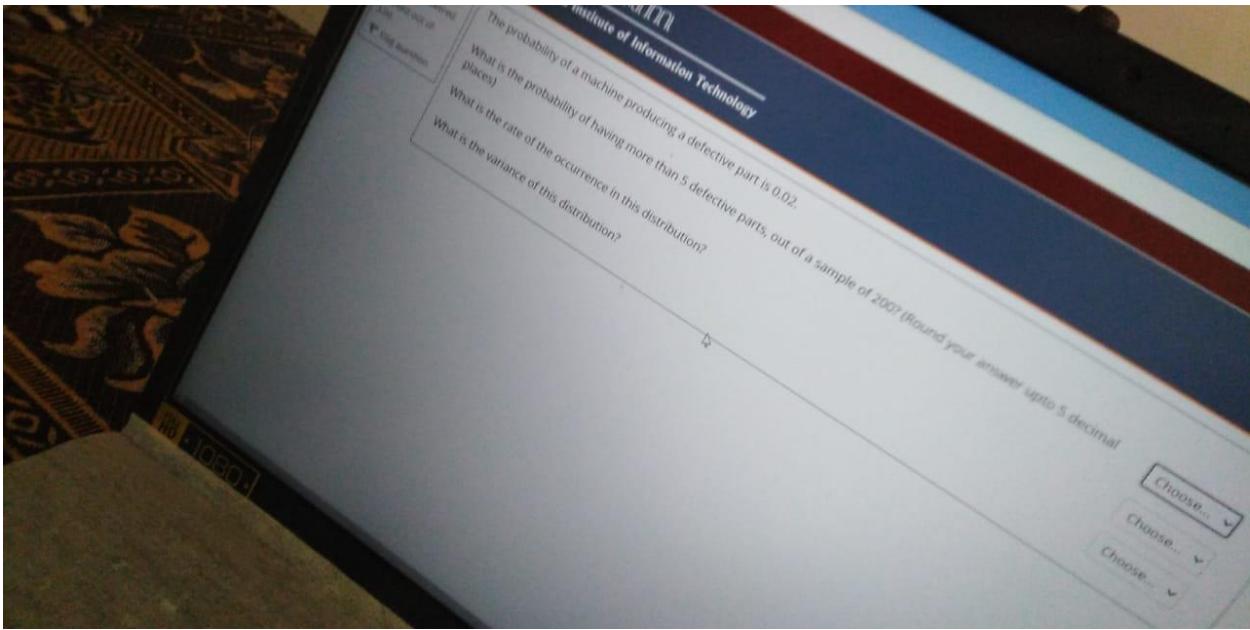
What is the rate of the occurrence in this distribution?

What is the variance of this distribution?

Choose...
Choose...
4
0.37116
2.92
0.41847
0.21487

Next p





 NetExam

Sri Lanka Institute of Information Technology

Mode and the median of the following data set respectively
6, 5, 5, 4, 3, 5

Select one:

- 6 and 6
- 5 and 6
- 5 and 5.5
- 5 and 5
- None of the above

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NetExam
Sri Lanka Institute of Information Technology

Question 6
Not yet answered
Marked out of 1.00
Flag question

The statistics course consists of two (2) online quizzes. 22% of the class passed both tests and 41% of the class passed the first test. About what percent of those who passed the first test also passed the second test? (Round up the answer to the nearest integer)

Select one:

- 54%
- 20%
- 3%
- 24%
- None of the above

Next page

Quiz na
Finish attempt
Time left 0:21:24
QUESTIONS
1 2 3
9 10 11
17 18 19
FEEDBACK
21

NetExam
Sri Lanka Institute of Information Technology

Let A^C and B be events with $P(A^C) = 1/2$, $P(A \cup B) = 3/4$, $P(A|B) = 1/3$ and $P(B^C) = 5/8$ where A^C is the complement of A . Then $P(A \cap B^C)$ is:

Select one:

- 1/8
- 3/8
- 6/8
- 7/8
- None of the above

Next page

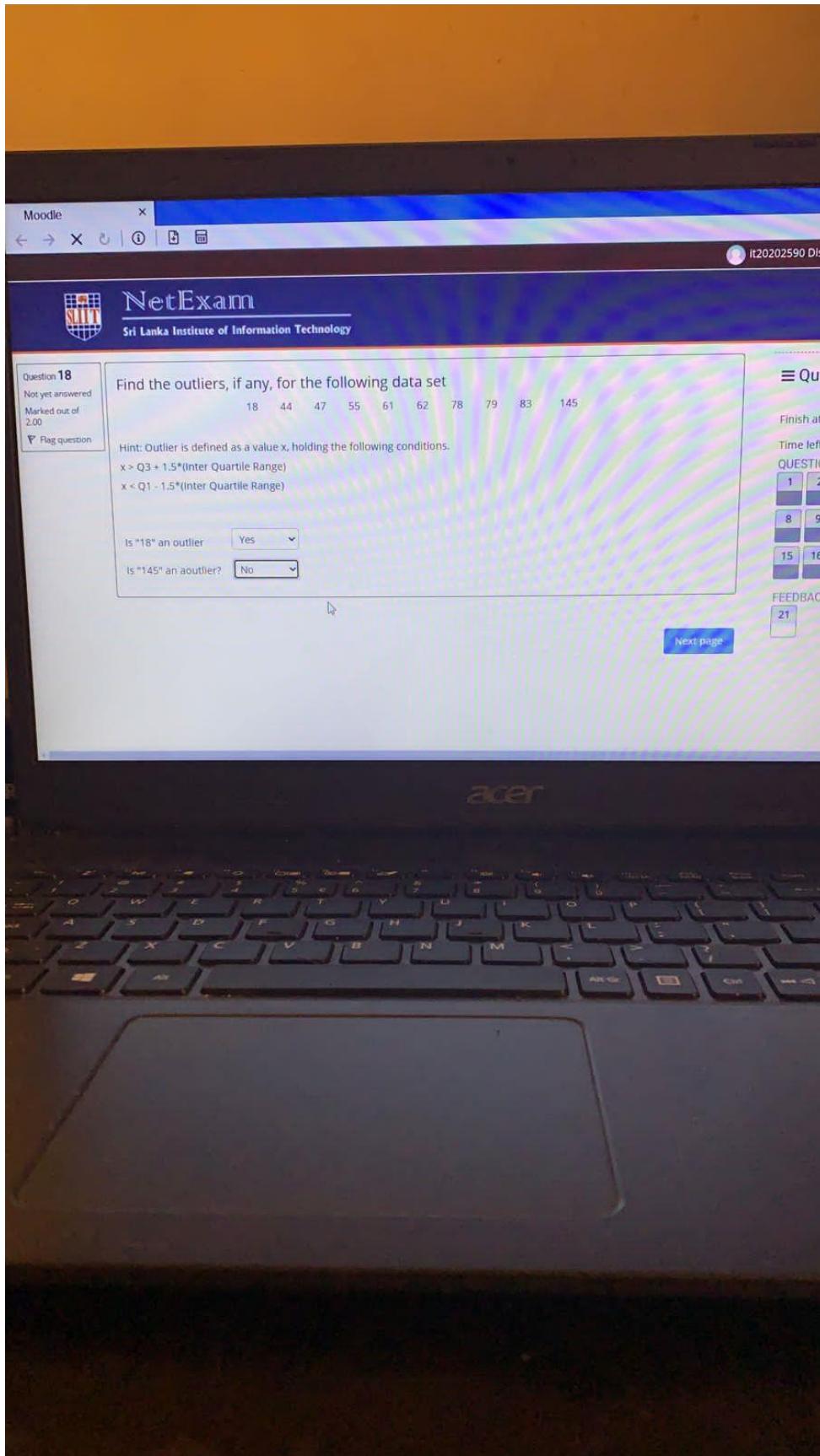
The image shows a screenshot of a computer screen displaying a test-taking application. At the top, there is a blue header bar with standard window control icons (minimize, maximize, close) on the left and a user ID "R20160302 R." on the right. Below the header is a dark brown navigation bar containing the text "NetExam" in white and "Sri Lanka Institute of Information Technology" in a smaller font. The main content area is a light gray box with a thin black border. Inside this box, there is a question text and a list of five options for a multiple-choice question. At the bottom right of the content area is a blue rectangular button labeled "Next page".

A garment factory produces large lots of a certain type of garments. What is the mean of the number of defective units found in a sample of 10 units if the lot is 2% defective?

Select one:

- 5
- 2
- 0.2
- 0.98
- None of the above

[Next page](#)



The probability that a patient recovers from a heart operation is 0.9. What is the probability that at least 2 of the next three patients who undergo this operation recover? (Don't use any approximation)

Select one:

- 0.8960
- 0.9720
- 0.7890
- 0.5960
- None of the above

Next

Determining the sample interval (represented by k), randomly selecting a number between 1 and k, and including each kth element in your sample are the steps for which form of sampling?

Select one:

- Simple Random Sampling
- Stratified Random Sampling
- Systematic Sampling
- Cluster sampling
- None of the above

Next

 NetExam
Sri Lanka Institute of Information Technology

Assuming that the weekly demand for a video recorder is a poisson variable with mean 3, find the probability that the shop sells

at least 3 in a week.

at most 7 in a week.

more than 20 in a month.

Choose... ▾

Choose...

0.08392
0.9881
0.03351
0.57681
0.0116

Next page

 Sri Lanka Institute of Information Technology

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of
stion

To be an outlier for the following data set, data points should lie between,
10.2, 14.1, 14.4, 14.4, 14.4, 14.5, 14.5, 14.6, 14.6, 14.7, 14.7, 14.7, 14.7, 14.9, 15.1, 15.9, 16.4

Hint: Outlier is defined as a value x , holding the following conditions.
 $x > Q3 + 1.5 * (\text{Inter Quartile Range})$
 $x < Q1 - 1.5 * (\text{Inter Quartile Range})$

Upper bound Choose... ▾

Choose...
15.25
13.15
15.35
16.15
13.65
13.45
15.45
12.45
15.65

Lower bound Choose... ▾

Choose...
15.25
13.15
15.35
16.15
13.65
13.45
15.45
12.45
15.65

Next page

 NetExam
Sri Lanka Institute of Information Technology

Question 15
Not yet answered
Marked out of 2.00

X	-10	-20	30
P(X)	1/5	3/10	1/2

Let X be a random variable with the probability distribution given above. The mean of $g(X) = 2X$ is:

Select one:

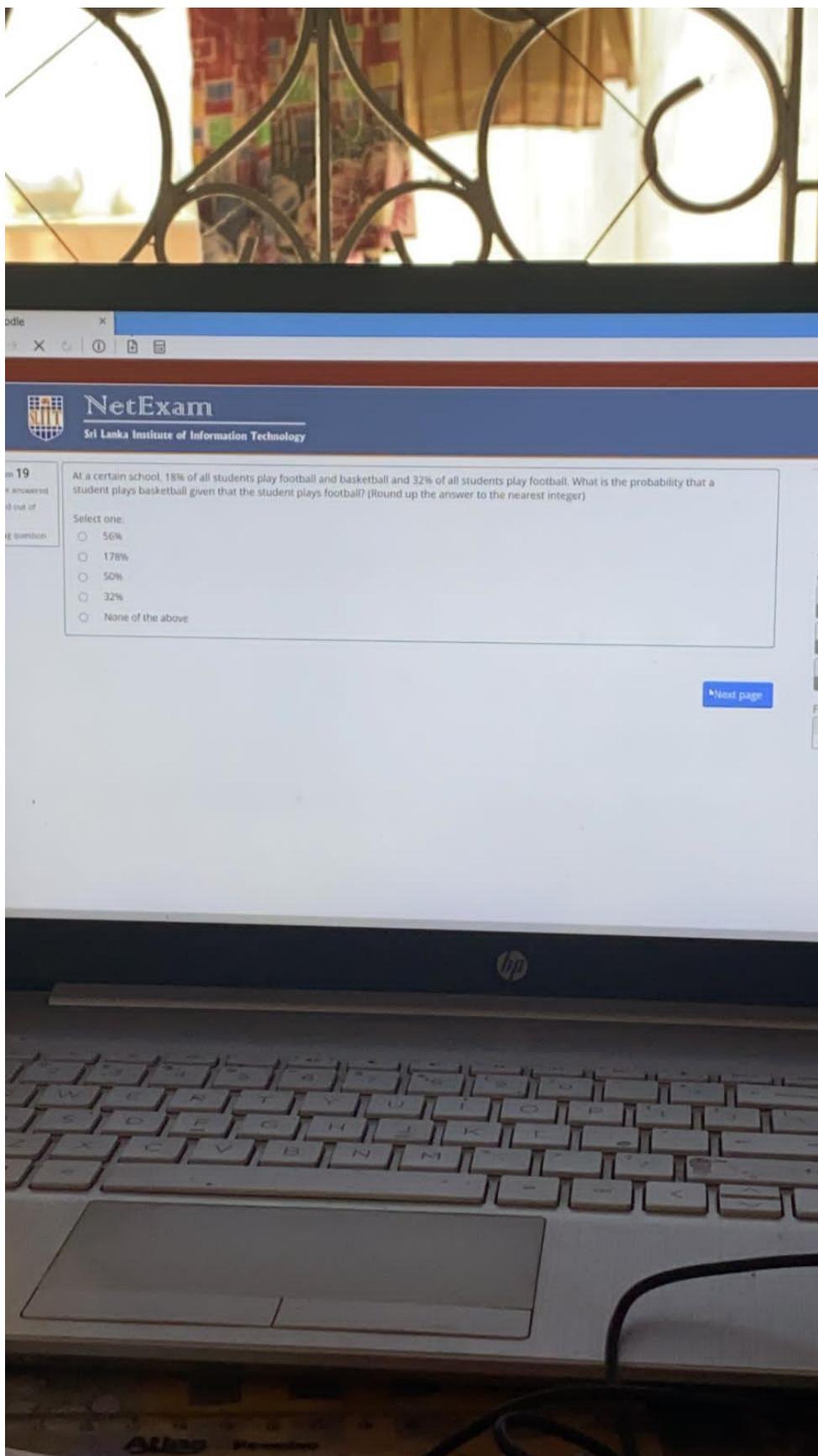
- 1
- 7
- 14
- 1
- None of the above

 NetExam
Sri Lanka Institute of Information Technology

The below transformation is applied to a data set
$$Y = 3X + 4$$
Where X is old data and Y is New data. If the variance of the old data set is 5. The variance of the new data set is,

Select one:

- 49
- 5
- 9
- 45
- None of the above



NetExam
Sri Lanka Institute of Information Technology

Question 20
Not yet answered
Marked out of 3.00
Flag question

The number of misprints on a page of the Daily Mercury has a Poisson distribution with mean 1.2. Find the probability of errors

on page four is 2. Choose...
on page three is less than 3. Choose...
on the first ten pages totals 5. Choose...
Choose...
0.12051
0.01274
0.69881
0.87949
0.21686

NetExam
Sri Lanka Institute of Information Technology

The purpose of stratified random sampling is to make certain that,

Select one:

- Every member of the population has an equal chance of being selected for the sample.
- The sample proportionately represents individuals from different categories of the population.
- The participants chosen for the study are the ones most likely to react to the treatment.
- The sample is more representative of the actual population than the accessible population.
- None of the above

The statistics course consists of two (2) online quizzes. 22% of the class passed both tests and 41% of the class passed the first test. About what percent of those who passed the first test also passed the second test? (Round up the answer to the nearest integer)

Select one:

- 54%
- 20%
- 3%
- 24%
- None of the above

[Next page](#)

A personal computer user survey was conducted. Time of personal computer use per week is an example of a

Select one:

- Discrete numerical variable
- Continuous numerical variable
- Nominal categorical variable
- Ordinal categorical variable
- None of the above.

[Next page](#)

X |  NetExam
Sri Lanka Institute of Information Technology

16
answered
out of
question

A and B are two events. $P(A \text{ and } B)'$ is equal to;

Select one:

- $P(A' \text{ or } B)$
- $P(A \text{ and } B')$
- $P(A' \text{ and } B')$
- $P(A' \text{ or } B')$
- None of the above.



red

Determine the value of k so that the function $P(X=x) = kx$ for $x=1,2,3,4,5,6$ can serve as a probability distribution of the discrete variable X.

on

Select one:

- 3/21
- 5/21
- 1/21
- 2/21
- None of the above

red

ion

To be an outlier for the following data set, data points should lie between,

10.2, 14.1, 14.4, 14.4, 14.4, 14.5, 14.5, 14.6, 14.7, 14.7, 14.7, 14.7, 14.9, 15.1, 15.9, 16.4

Hint: Outlier is defined as a value x, holding the following conditions.

$$x > Q3 + 1.5 * (\text{Inter Quartile Range})$$

$$x < Q1 - 1.5 * (\text{Inter Quartile Range})$$

Upper bound

Choose... ▾

- Choose...
- 15.35
- 15.25
- 13.15
- 16.15
- 13.65
- 15.65
- 12.45
- 13.45
- 15.45

Lower bound

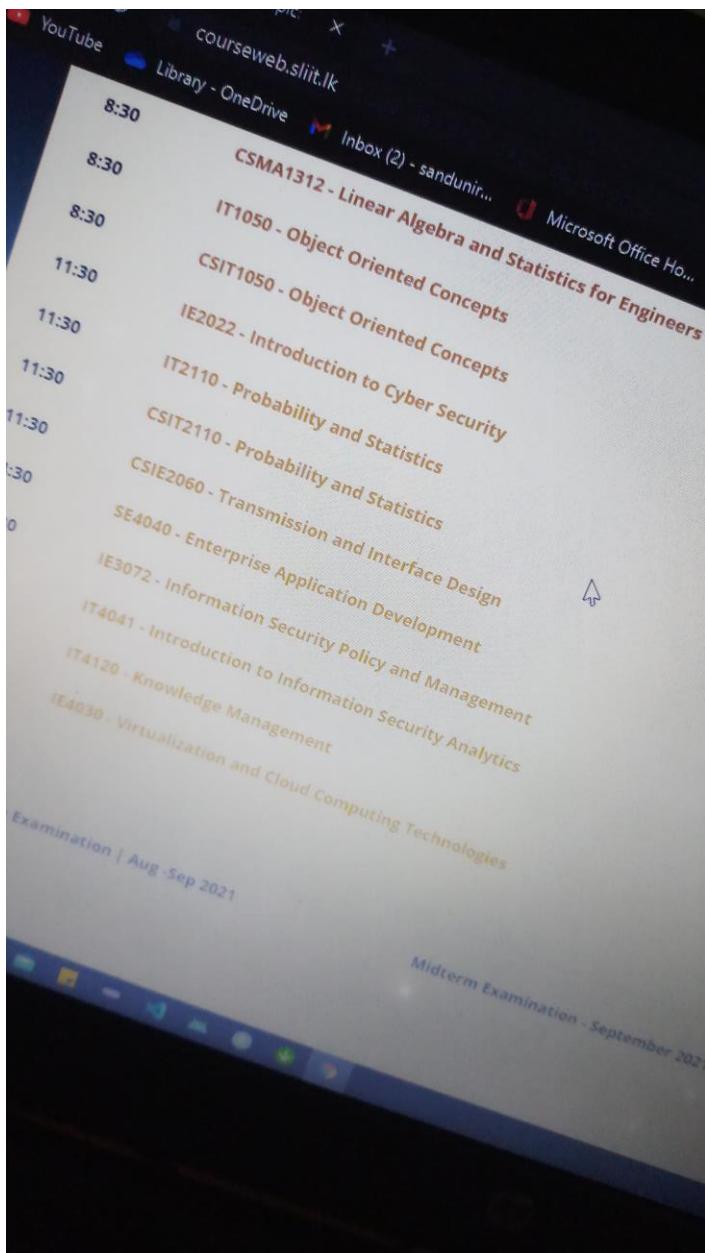
NetExamination

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Let E be an event and E' is its complement. If $P(E) = 1/3$, what is $P(E')$?

Select one:

- $P(E') = P(E) = 1/3$
- $P(E') = P(E) - 1 = -2/3$
- $P(E') = 2 * P(E) = 2/3$
- $P(E') = 1 - P(E) = 2/3$
- None of the above



$x > Q3 + 1.5 \times (\text{Inter Quartile Range})$

$x < Q1 - 1.5 \times (\text{Inter Quartile Range})$

Is "145" an outlier?

Choose... ▾

Choose...

No

Yes

Is "18" an outlier?

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After studying a couple's family history, a doctor determines that the probability of any child born to this couple having a gene for disease X is 1 out of 4. If the couple has three children, what is the probability that exactly two of the children have the gene for disease X?

Select one:

- 9/64
- 10/64
- 12/64
- 7/64
- None of the above



Question 7

Not yet answered
Marked out of 1.00

Flag question

This stem and leaf plot shows the number of cookies that Tia's Girl Scout troop sold each week. How many weeks did they sell cookies?

Stem	Leaf
5	1 1 4
6	4 5 6
7	2 2
8	3 6 7 7

Select one:

- 4
- 87
- 12
- 51
- The Stem and leaf plot do not say.



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☰

Finish

Time

QUE

1

9

17

FEED

21

When each member of a population has an equally likely chance of being selected, this is called:

Select one:

- A nonrandom sampling method.
- A quota sample.
- A judgement sampling
- A simple random sample.
- None of the above.

The type of sampling in which each member of the population selected for the sample is returned to the population before the next member is selected is called,

Select one:

- Sampling without replacement
- Sampling with replacement
- Simple random sampling
- Systematic sampling
- None of the above

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