



Online Exams

Sri Lanka Institute of Information Technology

Question 15

Not yet answered

Marked out of 2.00

Flag question

Patients arrive at a hospital accident and emergency department at a random rate of 6 per hour.
Find the probability that during 90 minutes period the number of patients arriving at the hospital accident and emergency department is .

At least 10

0.41259

Exactly 7?

Choose...

Choose...

0.08392

0.41259

0.55029

0.39370

0.11712

0.13768

0.41259

0.11712

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14

answered

out of

question

Which of the statements is false?

Select one:

- ☐ Variance is a measurement of dispersion. ✓
- ☒ The units being used in the variance are not meaningful always. ✗
- ☐ Variance is highly effected by the extreme values of the data set. ✓
- ☐ Variance can be zero for some data sets. ✓
- ☐ None of the above

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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

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In a classroom, 30% of students are doing Mathematics while 60% are doing Statistics. 10% are doing both of these subjects. What percentage is doing none of these subjects?

Select one:

☐ 0.6


☐ 0.3

☐ 0.5

☒ 0.2 ✓

☐ 0.1

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Suppose that in a national survey of 500 randomly selected adults, each person is asked how important religion is to him or her (very, fairly, not very), and whether the person favors or opposes stricter regulation of what can be broadcast on network television.

How many variables are there?

What is the sample size?

Choose...

Choose...

550

500

Not given

600

3

4

2

2 ✓

500 ✓

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The collection and summarization of the socioeconomic and physical characteristics of the employees of a particular firm is an example of

Select one:

- ☐ Inferential statistics.
- ☒ Descriptive statistics. ✓
- ☐ A parameter.
- ☐ A statistic.
- ☐ None of the above.

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A man sells electronic devices in his shop at an average rate of **2 per day**. What is the probability that the man sells at least 3 "electronic devices" in a **week (7days)** ?

Select one:

- ☒ 0.99991 ✓
- ☐ 0.65412
- ☐ 0.85456
- ☐ 0.21454
- ☐ 0.75442

Following is **not** an example for a survey error.

Select one:

- ☐ Sampling error
- ☐ Measurement error
- ☐ Selection bias
- ☐ Non-response bias
- ☒ None of the above



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Patients arrive at a hospital accident and emergency department at a random rate of 6 per hour.

Find the probability that during 90 minutes period the number of patients arriving at the hospital accident and emergency department is .

At least 10

0.41259



→ 0.41259

Exactly 77

Choose...

Choose...

0.08392

0.41259

0.55029

0.39370

0.11712

0.13768

→ ✓

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Question 13

Not answered

Marked out of 1

Flag question

The mean and the median of the set given below

11, 26, 43, 15, 60, 18, 25

1 5 6 1 7 3 4

$$\bar{x} = 28.2857$$

$$\text{Median} = 25$$

Select one:

- ☒ Mean = 28.29 and Median = 25
- ☐ Mean = 25 and Median = 28.5
- ☐ Mean = 27.29 and Median = 26.5
- ☐ Mean = 28.5 and Median = 27
- ☐ None of the above



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Find mean and standard deviation of the following data set.

13.5, 12.6, 14.6, 19.2, 11.6, 24.3, 17.7

Mean

Choose... ▼

Standard deviation

Choose... ▼

→ 16.214 ✓

→ 4.154 ✗

4.4875 ✓

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The probability of a machine producing a defective part is 0.04. Consider a sample of 100 parts.

What is the rate of the occurrence in this distribution? 4 ✓

What is the probability of having exactly 5 defective parts? (Round your answer upto 5 decimal places)

0.1595

What is the variance of this distribution?

3.84

Choose...

Choose...

4.32

0.15926

3.84

0.15629

4

0.37116

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Let 'X' be the number of passengers in a particular vehicle and its probability distribution. Find the probability of having at least two passengers in a given vehicle?

X	0	1	2	3	4
P(X=x)	0.2	0.1	a	0.3	0.1

Select one:

- ☐ 0.5
- ☒ 0.7
- ☐ 0.6
- ☐ 0.2
- ☐ 0.4

$$a = 1 - 0.2 - 0.1 - 0.3 - 0.1 = 0.3$$



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Question 5

Not yet answered

Marked out of 1.00

Flag question

In a Car Sale an average of 3 out of every 5 customers would make a business. A random sample of 10 were selected. Find the probability that at least 9 people would make a business.

Select one:

- ☐ 0.2546
- ☐ 0.0146
- ☐ 0.0245
- ☐ 0.2145
- ☒ 0.0464

$$\frac{3}{5} \rightarrow \frac{6}{10} = 0.6$$

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Question 13

Not answered

Marked out of 1

Flag question

The mean and the median of the set given below

11, 26, 43, 15, 60, 18, 25

Select one:

- ☒ Mean = 28.29 and Median = 25
- ☐ Mean = 25 and Median = 28.5
- ☐ Mean = 27.29 and Median = 26.5
- ☐ Mean = 28.5 and Median = 27
- ☐ None of the above





When selecting individuals for the sample, some individuals in the population have no chance of being selected to the sample (Or some individuals are excluded from the sampling frame). This survey error is known as,

Select one:

- ☒ Sampling error
- ☐ Measurement error
- ☐ Coverage error
- ☐ Non-response bias
- ☐ None of the above

≡ Quiz

1

2

8

9

15

16

Finish atte

Time left 0

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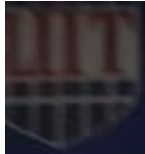
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Consider a computer system with Poisson job-arrival stream at an average of 2 per minute. Determine the probability that in any one-minute interval there will be 0 job arrivals.

Select one:

- ☐ 0.28811
- ☐ 0.41136
- ☐ 0.17492
- ☐ 0.03655
- ☒ 0.13534

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X	2	3	4	5
$P(X=x)$	0.2	0.3	a	0.3

Find $E(2X+5)$

Select one:

- ☐ 15.2
- ☐ 11.2
- ☒ 12.2
- ☐ 12.5
- ☐ 10.5



Question 1

Not yet answered

Marked out of 1

Flag question

In a class room, there are 50 students. You are asked to analyze the relationship between Age and Height of students. What is the **suitable graphical tool** which can be used to describe these two variables together?

Select one:

- ☐ Pie Chart
- ☐ Scatter Plot
- ☐ Bar Chart
- ☐ Clustered Bar Chart
- ☒ Histogram

Quiz navigation

1	2	3
8	9	10
15	16	17

Finish attempt ...

Time left 0:59:40

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Question 18

Not yet answered

Marked out of 1.00

Flag question

X	-1	0	1	2
P(X=x)	0.3	0.2	a	0.3

Find $P(0 \leq X \leq 2)$?

0.2

Select one:

- ☒ 0.7
- ☐ 0.9
- ☐ 0.8
- ☐ 0.3
- ☐ 0.6

Quiz navigation

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

Finish attempt ...

Time left 0:01:33

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Select the **incorrect** statement?

Select one:

- ☒ Histogram can be used to describe numerical variables ✓
- ☐ Pie chart can be used to describe one categorical variable ✓
- ☐ Two way table can be used to describe two categorical variables ✓
- ☐ Boxplot can be used to describe only one categorical variable ✗
- ☐ Stem and leaf plot can be used to describe numerical variables. ✓



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Question 3

Not yet answered

Marked out of 1.00

Flag question

An example for a probability sampling method is,

Select one:

- ☐ Quota sampling method
- ☐ Convenience sampling method
- ☒ Stratified random sampling method
- ☐ Volunteer sampling method
- ☐ None of the above

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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

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Quiz navigation

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

Finish attempt ...

Time left 0:46:22

Online Exams

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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 0 job arrivals.

Select one:

- ☐ 0.28811
- ☐ 0.41136
- ☐ 0.17492
- ☐ 0.03655
- ☒ 0.13534

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Question 2
Not yet answered
Marked out of 1.00
Flag question

An example for a nominal categorical variable is,

Select one:

- ☐ Importance of culture to respondent (very, somewhat, or not very important)
- ☐ Opinion about a new political law (favor or oppose)
- ☐ Length of forearm from elbow to wrist (in centimeters)
- ☒ Number of songs on a digital music player
- ☐ None of the above



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Question 1

Not yet answered

Marked out of 1.00

Flag question

Find the probability of a 5 turning uppermost at least once in two tosses of a fair die.

Select one:

- ☒ 11/36
- ☐ 12/36
- ☐ 15/36
- ☐ 14/36
- ☐ None of the above

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Question 1

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.