SY PSOT IT E-24-25-A-B

Started on	Wednesday, 19 February 2025, 7:04 PM
State	Finished
Completed on	Wednesday, 19 February 2025, 7:39 PM
Time taken	34 mins 11 secs
Grade	**25.00** out of 25.00 (**100**%)

Question 1

Complete

Mark 5.00 out of 5.00

If a random variable X has the exponential distribution with the mean 0.5,then

$P(X>0.5)$ is

0.3679 Write 4 places of decimal without rounding off.

Question 2

Complete

Mark 4.00 out of 4.00

Between the hours of 2 & 4 P.M. the average number of phone calls per minute coming in to the switchboard of a company is 2.5, find the probability that during a particular minute there will be more than 6 calls.

(a)0.082 (b) 0.014 (c) 0.92 (d) 0.986

Select one:

- c
- b
- a
- d

Question 3

Complete

Mark 5.00 out of 5.00

If X is uniformly distributed in $-2 \le x \le 2$ Then

$P(X<1)$ =

0.75

$P(|X-1|) \ge 0.5)$ =

0.75

Question 4

Complete

Mark 5.00 out of 5.00

The probability that a pen manufactured by a company will be defective is 0.1. If 12 such pens are examined, find the probability that

(a) exactly 2 will be defective

(b) at least 2 will be defective

(c) none will be defective.

ANS:(a) 0.2301

(b) 0.3409

(c) 0.2824

write 4 places of decimals without rounding off

Question 5

Complete

Mark 3.00 out of 3.00

X follows normal distribution with mean 33 and Standard deviation 3 then

P(40<X or X< 25) is (Input answered up to four decimal place)

Answer: 0.0137

Question 6

Complete

Mark 3.00 out of 3.00

X follows normal distribution with mean 33 and Standard deviation 3 then

P(25<X< 30) is (Input answered up to four decimal place)

Answer: 0.1549

◄ Tutorial-3: Correlation, Regression and Probability distribution using Python

Tutorial-6: Hypothesis Testing Using Python ►