

Question # 8 of 10 (Start time: 10:54:06 AM, 03 February 2022)

Total Marks:

$$f(10x+3) = \dots\dots\dots$$

Select the correct option

☒ $10 f(x) + 3$

☐ $10 f(x)$

☐ $100f(x)$

Select the correct option



$$P(-15 < X < 15)$$



$$P(X < 15)$$



$$P(X = 15)$$



$$P(X > 15)$$

4

If $f(x) = 3$ then $f(4x+3) = \dots$

Select the correct option



3



12



6



$\frac{1}{3}$

If $f(x) = 3$ then $f(4x+3) = \dots$

Select the correct option



3



12



0



12

Select the correct option



$$P(-15 < X < 15)$$



$$P(X < 15)$$



$$P(X = 15)$$



$$P(X > 15)$$

4

$E(10X + 3) =$

Select the correct option

☒ $10 E(X) + 3$

☐ $10 E(X)$

☐ $100E(X)$

Question # 3 of 10 (Start time: 10:48:20 AM, 02/08/2024)

If $P(B) = 0.75$, $P(A) = 0.35$ and $P(A \text{ and } B) = 0.20$, then $P(B|A)$ is:

Select the correct option

☐ 0.41

☐ 0.32

☐ 0.27

☒ 0.57

Question # 4 of 10 (Start time: 10:50:34 AM, 03 February 2022)

Total Marks:

What range of limit to be used for INTEGRATION of joint pdf to obtain its marginal pdf?

Select the correct option



0 to $+\infty$



0 to 1



$-\infty$ to $+\infty$

A coin is tossed and a single throw die is rolled. Find the probability of landing on the head side of the coin and rolling a 4 on the die.

Select the correct option



$3/12$



$1/12$



$1/6$



$1/2$

Question # 9 of 10 (Start time: 10:43:23 AM, 03 February 2023)

Total Mark:

The marginal p.d.f. of variables is obtained by integrating the other variable from the joint p.d.f.

Select the correct option



Binomial



Discrete



Continuous

When A and B are two non-empty and mutually exclusive events, then:

Select the correct option

☐	$P(A \cap B) = P(A) + P(B)$	☒
☒	$P(A \cup B) = P(A) + P(B)$	
☐	$P(A \cap B) = P(A) P(B)$	

QUESTION 10 (10 Marks)

Select the correct option

☐	Coefficient of Variation
☐	Standard Deviation
☐	Variance
☒	All

Two discrete r.v.'s X and Y are said to be statistically independent, if and only if, for all possible pairs of values (x, y) the joint probability function $f(x, y)$ can be expressed as the of the two marginal probability functions.

Select the correct option

☐	Sum
☐	Average
☒	Product

Question # 8 of 10 (Start time: 10:41:18 AM, 03 February 2022)

If $P(A) = 0.7$ and $P(B) = 0.2$ then find $P(A \cup B)$ where A and B are mutually exclusive events.

Select the correct option.



0.14



0.1



0.9



Question # 6 of 10 (Start time: 10:19:11 AM, 03 February 2022)

We use the General Rule of Multiplication to combine:

Select the correct option

- ☐ Events that total more than 1.00
- ☒ Events those are not independent
- ☐ Events based on subjective probabilities
- ☐ Mutually exclusive events

$y:$	-1	0	1	2
$P(y)$	0.3	0.2	0.4	0.1

Calculate the of σ^2

Select the correct option

☐

0.15

☐

0.25

☒

0.10

☐

0.20



Question # 3 of 10 (Start time: 10:38:13 AM, 03 February 2022)

Total Marks

$f(4x + 50) =$

Select the correct option



$f(x) + 50$



$4 f(x) + 50$



$10f(x)$

Question # 2 of 10 (Start time: 10:34:42 AM, 03 February 2022)

$E(4X + 5) =$

Select the correct option

- ☒ $4 E (x) + 5$
- ☐ $12 E (x)$
- ☐ $16 E (x)$



Question # 8 of 10 (Start time: 10:25:54 AM, 03 February 2023)

Total Marks

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

Select the correct option



$1/6$



$1/12$



$3/12$

It is a multiple choice question with 4 options. The question is about the value of a variable. The options are 2.7, 0.75, 3.25, and 1.5.

Select the correct option

☐	2.7
☒	0.75
☐	3.25
☐	1.5

When a coin is tossed 3 times, the probability of getting 2 or less tails is

Select the correct option



1



$\frac{3}{5}$



0



$\frac{1}{2}$

If $\mu = 4.920$ and $\sigma = 1.2$, then $P(X > 4)$ will be

Select the correct option



15.3%



24.36%

4



11.4%

Question # 6 of 19 | **Start** | **Next** | **Previous** | **End**

From the following table,

x	0	1	2	3
$f(x)$	0.26	0.49	0.22	0.03

$E(2x+1)$ will be:

Select the correct option

- ☒ 1.98
- ☐ 0.99
- ☐ 2



If $b = 0$, then $\ell(ay + b) =$

Select the correct option



0



$y \ell(a + b)$



$a \ell(y)$

The function abbreviated to d.f. is also called the ____.

Select the correct option

☐

Discrete function

☒

Commutative distribution function

☐

Probability distribution function