Module 0 - Entry Exam

IFOA IFOA_CAA_M0

Version Demo

Total Demo Questions: 10

Total Premium Questions: 64
<u>Buy Premium PDF</u>

https://dumpsqueen.com support@dumpsqueen.com

dumpsqueen.com

QUESTION NO: 1

A biased coin has the following probability distribution function:

P(heads) = 0.80 P(tails) = 0.20 The biased coin is tossed twice in succession. Calculate the probability of tossing at least one tail. A. 0.20 B. 0.36 C. 0.64 D. 0.80 ANSWER: B

QUESTION NO: 2

An insurance company sells policies where, for each policy, the policyholder pays the first £50 of the cost of any claim. A claim reported to the insurance company takes some unknown value £x.

Identify which of the mathematical expressions below represents the cost in £ to the insurance company of the claim.

A. x - 50

B. x

C. max(x, 50)

D. max(x - 50, 0)

ANSWER: D

QUESTION NO: 3

Identify which of the following involves weak inequality.

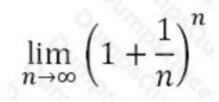
A)

 $(x+1)^n$

B)

max xe $0 \le x \le 1$

C)



D)

 $a^2b^2 > c^2 + mx$

- A. Option A
- B. Option B
- C. Option C
- **D.** Option D

ANSWER: B

QUESTION NO: 4

The probability density function f(x) for a random variable X is defined over the interval 0 to 1.

f(x) = 2(1-x).

Calculate the probability that X is greater than 0.5.

A. 0.25

B. 0.5

C. 0.75

D. 1

ANSWER: A

QUESTION NO: 5

Three light bulbs are chosen at random from 15 bulbs of which 5 are known to be defective.

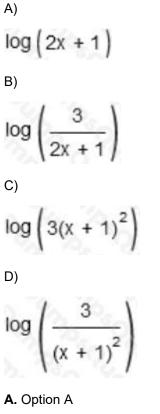
Calculate the probability that exactly one of the three is defective.

A)			
$\frac{1}{3}$			
3			
В)			
15			
$\frac{15}{31}$			
C)			
45			
45 91			
D)			
33			
33 65			
A. Option A			
B. Option B			
C. Option C			
D. Option D			

ANSWER: C

QUESTION NO: 6

Determine which of the options is equal to log(3) - 2log(x+1).



- B. Option B
- C. Option C
- D. Option D

ANSWER: D

QUESTION NO: 7

The variable s can take values between 2 and 6.

Identify which of the inequalities shown can be satisfied by at least one value of s.

A. s + 5 < 6 **B.** s + 9 < 6

- **C.** s 6 > 2
- 0.3-072
- **D.** s 2 > 2

ANSWER: D

QUESTION NO: 8

Determine which of the statements is true about the root(s) of the following equation:

$$x^2 + \sqrt{2}x - 4 = 0$$

- A. There is only one real root which takes a positive value.
- **B.** There is only one real root which takes a negative value.
- **C.** There are two real roots, r1 and r2, where r1 is positive and:r1 = -0.5 r2
- **D.** There are two real roots, r1 and r2, where r1 is positive and:r1 = 2 r2

ANSWER: C

QUESTION NO: 9

One of the two solutions to the equation is .

$$\frac{1}{|2 - 7x|} = 3$$

Determine the second solution.

 $\frac{5}{21}$ A) $\frac{1}{7}$ B) $\frac{3}{14}$ C) $\frac{1}{3}$

D)
5
-
7
A. Option A
B. Option B
C. Option C
D. Option D

ANSWER: C

QUESTION NO: 10

Consider the function f(x) = x2-6x+20. This function has a stationary point at x = 3.

Determine the nature of this stationary point and how do we know this to be true.

A. It is a minimum stationary point because the second derivative of the function with respect to x takes the value 2, which is positive.

B. It is a maximum stationary point because the second derivative of the function with respect to x takes the value 2, which is positive.

C. It is a maximum stationary point because the value of the function at x = 3 is 11, which is positive.

D. It is a minimum stationary point because the value of the function at x = 3 is 11, which is positive.

ANSWER: A