DUMPSARENA

Module 0 - Entry Exam

IFoA IFoA_CAA_M0

Version Demo

Total Demo Questions: 10

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QUESTION NO: 1

Calculate the sum of the following non-terminating progression:

2/10, 2/40, 2/160, 2/640,...

A. 0.174

B. 0.266

C. 0.267

D. 0.406

ANSWER: C

QUESTION NO: 2

A recurrence relation is given by: Un = 2Un - 1 + 3

If U0 = 0, calculate U2 =

A. 3

B. 9

C. 13

D. 21

ANSWER: B

QUESTION NO: 3

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

D. s - 2 > 2

ANSWER: D

QUESTION NO: 4

9	12	3	2	1	1	7

Assuming the position of the first quartile of an appropriately ordered dataset is given by

$$\frac{n+1}{4}$$

and the position of the third quartile of an appropriately ordered dataset is given by

$$3\,\frac{n+1}{4}$$

Calculate the range and interquartile range of the above dataset.

Range	11
Interquartile Range	11

Range	11
Interquartile Range	8

Range	2
Interquartile Range	11

Range	11
Interquartile Range	2.75

A. Option A

B. Option B

C. Option C

D. Option D

ANSWER: B

QUESTION NO: 5

Integrate:

$$\int x^n + e^{2x} dx =$$

A)

$$\frac{1}{n+1} x^{n+1} + \frac{1}{3} e^{3x} + C$$

B)

$$\frac{1}{n} x^{n+1} + \frac{1}{2} e^{2x} + C$$

C)

$$\frac{1}{n+1} x^{n+1} + \frac{1}{2} e^{2x} + C$$

D)

$$nx^{n-1} + 2e^{2x} + C$$

A. Option A

B. Option B

C. Option C

D. Option D

ANSWER: C

QUESTION NO: 6

Calculate the second order derivative of y with respect to x, where:

y = 3x2 + ex

A. 6 + ex

B. 6x + ex

C. 6x + ex-1

D. 6 + (x - 1)ex-2

ANSWER: A

QUESTION NO: 7

The table below shows the distribution of the number of people in each household in a village.

Number of People per Household	Frequency
0	1
1	6
2	5
3	4
4	4

Determine which of the following inequalities is true for the number of people living in a house.

A. Mode < Median < Mean

B. Mode < Mean < Median

C. Median < Mean < Mode

D. Median < Mode < Mean

ANSWER: A

QUESTION NO: 8

Solve the following equation for x:

12x +10 = 3x - 8

A. x = -9/2

B. x = -2

C. x = 2

D. x = 9/2

ANSWER: B

QUESTION NO: 9

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)

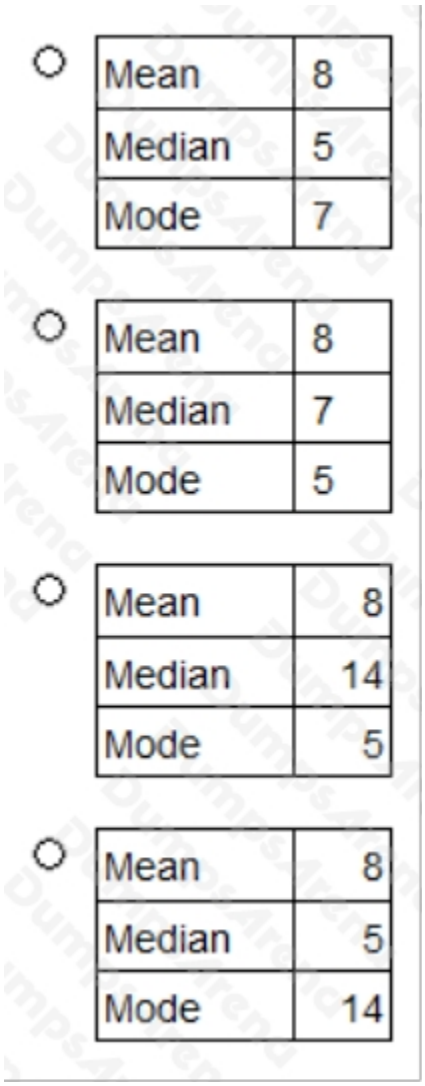
D. max(x - 50, 0)

ANSWER: D

QUESTION NO: 10

Calculate the mean, median and mode of the above dataset.

3	5	10	14	7	5	12



Mean	8
Median	5
Mode	7

Mean	8
Median	7
Mode	5

Mean	8
Median	14
Mode	5

Mean	8
Median	5
Mode	14

A. Option A

B. Option B

C. Option C

D. Option D

ANSWER: D