

RIZ MUGHAL

QUIZ MASTER

Grand Quiz(MTH202)

100% correct solution.

For more information you can visit my channel and for any type of help related to CS619 you can contact me.



YOUTUBE CHANNEL:

<https://www.youtube.com/channel/UCINsFwDiB62SValCcPDZbRQ/playlists>

FACEBOOK GROUP:

<https://www.facebook.com/groups/923887914750307>

Question # 1 of 30 (Start time: 02:13:07 AM, 30 December 2020)

Total

Let f and g be two functions defined by $f(x) = x + 2$ and $g(x) = 2x + 1$. Then the composition of f and g

Select the correct option

[Reload Math E](#)

- | | |
|----------------------------------|-----------------|
| <input type="radio"/> | $x - 1$ |
| <input type="radio"/> | $2x + 3$ |
| <input checked="" type="radio"/> | $2x + 5$ |
| <input type="radio"/> | $2x^2 + 5x + 2$ |

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Question # 2 of 30 (Start time: 02:13:30 AM, 30 December 2020)

Let $R = \{(1, 2), (3, 4), (5, 6), (7, 8)\}$. Range of the inverse of the relation is _____.

Select the correct option

- | | |
|----------------------------------|--------------|
| <input checked="" type="radio"/> | {1, 3, 5, 7} |
| <input type="radio"/> | {2, 4, 6, 8} |
| <input type="radio"/> | {1, 2, 3, 4} |
| <input type="radio"/> | {5, 6, 7, 8} |

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Question # 3 of 30 (Start time: 02:13:42 AM, 30 Decem

The set Z of all integers is countable.

Select the correct option



True



False

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Question # 4 of 30 (Start time: 02:13:57 AM, 30 December 2020)

In the representation of an irreflexive relation using a matrix, all its diagonal entries will be

Select the correct option

<input checked="" type="radio"/>	0
<input type="radio"/>	1
<input type="radio"/>	-1
<input type="radio"/>	2

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Question # 5 of 30 (Start time: 02:14:11 AM, 30 December 2020)

Let $p =$ I am hard working, $q =$ I am intelligent. Then $\sim p \wedge q$ means -----

Select the correct option

- | | |
|----------------------------------|---|
| <input type="radio"/> | I am hard working AND I am intelligent. |
| <input checked="" type="radio"/> | I am NOT hard working BUT I am intelligent. |
| <input type="radio"/> | I am NOT hard working OR I am intelligent. |
| <input type="radio"/> | I am hard working AND I am NOT intelligent. |

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Question # 6 of 30 (Start time: 02:14:25 AM, 30 December 2020)

If a set A contains n elements then the number of elements in its power set P(A) is

Select the correct option

<input type="radio"/>	$2(n)$
<input type="radio"/>	n^2
<input checked="" type="radio"/>	2^n
<input type="radio"/>	n^0

Question # 7 of 30 (Start time: 02:14:42 AM, 30 December 2020)

Which of the following is true for the following sequence?

$$C_n = 1 - (-1)^n \text{ for all integers } n > 0$$

Select the correct option

- | | |
|----------------------------------|--|
| <input type="radio"/> | If n is even, then $C_n = 2$ and if n is odd, then $C_n = 0$ |
| <input checked="" type="radio"/> | If n is even, then $C_n = 0$ and if n is odd, then $C_n = 2$ |
| <input type="radio"/> | If n is even, then $C_n = 2$ and if n is odd, then $C_n = 1$ |
| <input type="radio"/> | If n is even, then $C_n = 1$ and if n is odd, then $C_n = 0$ |

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Question # 8 of 30 (Start time: 02:14:56 AM, 30 December 2020)

Let $A=\{1, 2, 3, 4\}$ and $R=\{(1, 1)(2, 2)(3, 3)(4, 4)\}$ then R is

Select the correct option

<input type="radio"/>	Transitive
<input type="radio"/>	Symmetric
<input type="radio"/>	Reflexive
<input checked="" type="checkbox"/>	Options a,b,and c all true

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Question # 9 of 30 (Start time: 02:15:09 AM, 30 December 2020

If $A-B=A$, which of the following statement is true?

Select the correct option

- | | |
|----------------------------------|-------------------------------------|
| <input type="radio"/> | A is the subset of B |
| <input type="radio"/> | B is the subset of A |
| <input type="radio"/> | $A=B$ |
| <input checked="" type="radio"/> | All the given statements are false. |

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Question # 10 of 30 (Start time: 02:15:24 AM, 30 December 2020)

If $A = \{1, 2, 3\}$ is a set and $R = \{(1, 2), (2, 2), (2, 1)\}$ is a relation on A, R is

Select the correct option

<input type="radio"/>	Transitive
<input checked="" type="radio"/>	Symmetric
<input type="radio"/>	Reflexive
<input type="radio"/>	None of these

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Question # 11 of 30 (Start time: 02:15:41 AM, 30 December 2020)

The converse of the conditional statement 'If I live in Lahore, then I live in Punjab' is -----.

Select the correct option

- | | |
|----------------------------------|---|
| <input type="radio"/> | If I do Not live in Lahore, then I live in Punjab. |
| <input type="radio"/> | If I do Not live in Lahore, then I do Not live in Punjab. |
| <input type="radio"/> | If I live in Punjab, then I do Not live in Lahore. |
| <input checked="" type="radio"/> | If I live in Punjab, then I live in Lahore. |

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Question # 12 of 30 (Start time: 02:16:10 AM, 30 December 2020

Every set can be represented in tabular form.

Select the correct option

<input type="radio"/>	True
<input checked="" type="radio"/>	False

Question # 13 of 30 (Start time: 02:16:24 AM, 30 December 2020)

The function defined from Z to Z as $f(x) = \frac{1}{(x+2)(x-2)}$ is not well defined because.....

Select the correct option

- | | |
|----------------------------------|--|
| <input type="radio"/> | Function gives imaginary values for $x < -2$ |
| <input type="radio"/> | Each input has two outputs. |
| <input type="radio"/> | Function is defined at $x=2$ but not defined at $x=-2$ |
| <input checked="" type="radio"/> | Function is not defined at $x=-2$ and $x=2$ |

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Question # 14 of 30 (Start time: 02:16:40 AM, 30 December 2020)

Let $X = \{1,5,9\}$ and $Y = \{3,4,7\}$. Define a function f from X to Y such that

$$f(1) = 7$$

$$f(5) = 3$$

$$f(9) = 4$$

then which one of the following statement about f is true?

Select the correct option

<input type="radio"/>	f is not one-to-one
<input type="radio"/>	f is not onto
<input checked="" type="radio"/>	f is both one-to-one and onto
<input type="radio"/>	f is neither one-to-one nor onto

Question # 15 of 30 (Start time: 02:16:54 AM, 30 December 2020)

Which of the following is always true for the matrix representation of a symmetric relation?

Select the correct option

- | | |
|----------------------------------|---|
| <input type="radio"/> | Matrix has always 0 in its diagonal entries |
| <input checked="" type="radio"/> | Matrix is equal to its transpose. |
| <input type="radio"/> | Matrix has always 1 in its diagonal entries |
| <input type="radio"/> | Matrix is singular |

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Question # 16 of 30 (Start time: 02:17:11 AM, 30 December 2020)

Associative law of union for three sets is

Select the correct option

<input checked="" type="radio"/>	$A \cup (B \cup C) = (A \cup B) \cup C$
<input type="radio"/>	$A \cap (B \cap C) = (A \cap B) \cap C$
<input type="radio"/>	$A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$
<input type="radio"/>	None of these

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Question # 17 of 30 (Start time: 02:17:24 AM, 30 December 202

In general,
 $n! = n(n-1)!$ for all integer n .

Select the correct option

<input type="radio"/>	True
<input checked="" type="radio"/>	False

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Question # 18 of 30 (Start time: 02:17:39 AM, 30 December 2020)

Let $A = \{1,2,3,4\}$ and define the following relation on A. Then $R = \{(1,3), (2,2), (2,4), (3,1), (4,2)\}$ is _____.

Select the correct option

<input checked="" type="radio"/>	R is Symmetric
<input type="radio"/>	R is Antisymmetric

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Question # 19 of 30 (Start time: 02:17:53 AM, 30 December 2020

if f is a bijective function then $(f^{-1}(f(x)))$ is equal to

Select the correct option

<input type="radio"/>	0
<input checked="" type="radio"/>	x
<input type="radio"/>	1
<input type="radio"/>	<i>None of these</i>

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Question # 20 of 30 (Start time: 02:18:12 AM, 30 Decem

$p \leftrightarrow q$ is logically equivalent to -----

Select the correct option

- | | |
|----------------------------------|---------------------------|
| <input type="radio"/> | $p \text{ XOR } q$ |
| <input type="radio"/> | $\sim (p \rightarrow q)$ |
| <input checked="" type="radio"/> | $\sim (p \text{ XOR } q)$ |
| <input type="radio"/> | $\sim p \vee q$ |

Question # 21 of 30 (Start time: 02:18:26 AM, 30 December 2020)

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Let $A = \{0, 1, 2\}$ and $R = \{(0,2), (1,1), (2,0)\}$ be a relation on A . Then which of the following ordered pairs are needed to make it reflexive.

Select the correct option

- | | |
|----------------------------------|-----------------|
| <input checked="" type="radio"/> | (0,0) and (2,2) |
| <input type="radio"/> | (0,0) and (0,2) |
| <input type="radio"/> | (2,0) and (2,2) |
| <input type="radio"/> | (2,0) and (0,2) |

Question # 22 of 30 (Start time: 02:18:44 AM, 30 December 2020)

Let A be subset of universal set U then $A \cup A^c =$

Select the correct option

Relo

<input type="radio"/>	$A \cap A^c$
<input type="radio"/>	A
<input type="radio"/>	ϕ
<input checked="" type="radio"/>	U

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Question # 23 of 30 (Start time: 02:18:58 AM, 30 December 2020

Let R be a binary relation on a set A . If R is anti symmetric then _____

Select the correct option



Inverse of R is symmetric



Inverse of R is anti symmetric

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Question # 24 of 30 (Start time: 02:19:13 AM, 30 December 2020)

The inverse of the statement 'If it is pleasant outside, then I go to the park' is -----

Select the correct option

- | | |
|----------------------------------|--|
| <input type="radio"/> | If it is NOT pleasant outside, then I go to the park. |
| <input type="radio"/> | If it is pleasant outside, then I do NOT go to the park. |
| <input checked="" type="radio"/> | If it is NOT pleasant outside, then I do NOT go to the park. |
| <input type="radio"/> | If I go to the park, then it is pleasant outside. |

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Question # 25 of 30 (Start time: 02:19:27 AM, 30 December 2020)

The inverse of the statement 'If it is hot day, then I am at home' is -----

Select the correct option

If it is hot, then I am Not at home.

If it is Not hot, then I am Not at home.

If it is Not hot, then I am at home.

If I am at home, then it is hot.

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Question # 26 of 30 (Start time: 02:19:41 AM, 30 December 2020)

If f and g are two one-to-one functions, then their composition that is $g \circ f$ is one-to-one.

Select the correct option

<input checked="" type="radio"/>	True
<input type="radio"/>	False

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Question # 27 of 30 (Start time: 02:19:55 AM, 30 December 2020)

Let A, B, C be subset of universal set U then the Idempotent Law is

Select the correct option



<input type="radio"/>	$A \cup A^c = A$
<input type="radio"/>	$A \cap A^c = A$
<input type="radio"/>	$A \cap A^c = \phi$
<input checked="" type="radio"/>	$A \cap A = A$

Question # 28 of 30 (Start time: 02:20:13 AM, 30 December 2020)

Let A and B be subset of universal set U then $A - (A - B) =$

Select the correct option

<input type="radio"/>	$A \cup B$
<input checked="" type="radio"/>	$A \cap B$
<input type="radio"/>	$A - B^c$
<input type="radio"/>	$(A \cap B)^c$

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Question # 29 of 30 (Start time: 02:20:42 AM, 30 December 2020)

Let R be a relation on a set A . If R is reflexive then its compliment is _____

Select the correct option

<input type="radio"/>	Reflexive
<input checked="" type="radio"/>	Irreflexive
<input type="radio"/>	Symmetric
<input type="radio"/>	Antisymmetric

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Question # 30 of 30 (Start time: 02:20:55 AM, 30 December 2020)

Real valued function is a function that assigns ____ to each member of its domain.

Select the correct option

- | | |
|----------------------------------|---------------------------|
| <input type="radio"/> | negative real number |
| <input type="radio"/> | positive real number |
| <input checked="" type="radio"/> | only a real number |
| <input type="radio"/> | any arbitrary real number |