RIZ MUGHAL



QUIZ MASTER

MTH401 QUIZ 2 (Lecture 23 to 32)

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

MTH401:Quiz No. 2

Question # 1 of 10 (Start time: 12:58:14 PM, 28 January 2021)

The _____ force is proportional to the instantaneous velocity

$$\frac{dx}{dt}$$

Select the correct option

○	umdamped
◉	damped
○	retarding
○	restoring

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Question # 2 of 10 (Start time: 12:58:35 PM, 28 January 2021)

For

$$\frac{dy}{dx} - \frac{y}{x} = -\frac{\ln x}{x}$$

Select the correct option

○	-x
●	-1/x
○	-y
○	-1/y

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MTH401:Quiz No. 2 Quiz Start Time: 12:58 PM, 28 January 2

Question # 3 of 10 (Start time: 12:58:50 PM, 28 January 2021) Total Mark

In the study of mechanics, cosider the damping force acting on a body i.e. $-\beta\left(\frac{dx}{dt}\right)^2$, where β is a damping constant and negative sign indicates that the damping force acts in a direction _____

Select the correct option

Reload Math Equatio

○	same
◉	opposite

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Question # 4 of 10 (Start time: 12:59:06 PM, 28 January 2021)

The quantity $X = L\gamma - \frac{1}{C\gamma}$ is called _____ of the circuit.

Select the correct option

○	impedance
◉	reactance

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Question # 5 of 10 (Start time: 12:59:20 PM, 28 January 2021)

A / An _____ is a passive electronic component that stores energy in the form of magnetic field.

Select the correct option

- (●) inductor
- ( ) capacitor
- ( ) resister
- ( ) voltage

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MTH401:Quiz No. 2 Quiz Start Time: 12:58 PM, 28 Janua

Question # 6 of 10 (Start time: 12:59:36 PM, 28 January 2021) Total M

The equation, $(x^2+1)\frac{d^2y}{dx^2} + 2x\frac{dy}{dx} + 6y = 0$, has the singular point(s) at $x =$ _____.

Select the correct option

Reload Math Equa

- ○ (I) ± 1
- ○ (II) i
- ○ (III) $-i$
- ◉ (IV) Both (II) and (III).

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Question # 7 of 10 (Start time: 12:59:49 PM, 28 January 2021)

The differential equation

$$y'' + (\cos x)y = 0$$

has ordinary point at _____.

Select the correct option

◉	x=0
○	x=1
○	x=-1
○	none of them

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Question # 8 of 10 (Start time: 01:00:02 PM, 28 January 2021)

The differential equation

$$(x^2 - 4)y'' + 2xy + y = 0$$

has singular point at

Select the correct option

○	x=0
○	x=1
○	x=2
◉	x=2 and x = -2

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MTH401:Quiz No. 2 Quiz Start Time: 12:5

Question # 9 of 10 (Start time: 01:00:15 PM, 28 January 2021)

The quantity $Z = \sqrt{X^2 + R^2}$ is called _____ of the circuit.

Select the correct option

Rel

- [x] impedance
- [ ] reactance

Click to Save Answer & Mov

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MTH401:Quiz No. 2 Quiz Start Time: 12:58 PM, 28 Jan

Question # 10 of 10 (Start time: 01:00:28 PM, 28 January 2021) Tot

A function f is said to be analytic at a point a if it can be represented by a power series in (x-a) with a positive radius of__

Select the correct option

Reload Math E

○	divergence
◉	convergence

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2nd account

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Question # 1 of 10 (Start time: 01:02:21 PM, 28 January 2021)

For solving non homogeneous differential equation, we use either the method of _____.

Select the correct option

- ○ Undetermined coefficient
- ○ Variation of parameter
- ● a&b both
- ○ None of them

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Question # 2 of 10 (Start time: 01:02:40 PM, 28 January 2021)

The regular singular point of the differential equation

$$(x^2-4)^2y+(x-2)y'+y=0$$

is _____.

Select the correct option

○	1
○	-1
◉	2
○	-2

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MTH401:Quiz No. 2 Quiz Start

Question # 3 of 10 (Start time: 01:02:51 PM, 28 January 2021)

Any linear differential equation of the form

$$a_{n-1}x^{n-1}\frac{d^{n-1}y}{dx^{n-1}}+\ldots.+\frac{dy}{dx}+a_0y=g(x)$$

Select the correct option

○	Homogeneous
○	Non homogeneous
◉	Cauchy-Euler
○	Cauchy-Euler

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Question # 4 of 10 (Start time: 01:03:04 PM, 28 January 2021)

A / An _____ is a passive electronic component that stores energy in the form of magnetic field.

Select the correct option

- (●) inductor
- ( ) capacitor
- ( ) resister
- ( ) voltage

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Question # 5 of 10 (Start time: 01:03:18 PM, 28 January 2021)

The infinite series $\sum_{n=1}^{\infty} \frac{(-1)^{n+2}}{n^3}(x+3)^n$. is a power series in x centered at

Select the correct option

○	3
◉	-3
○	2
○	-2

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Question # 6 of 10 (Start time: 01:03:33 PM, 28 January 2021)

A power series in (x-2) is an infinite series of the form

$$\sum_{n=0}^{\infty} c_n(x-2)^n = c_0 + c_1(x-2) + c_2(x-2)^2 + \dots.$$

Select the correct option

○	Radius of power series
○	Base of power series
◉	Center of power series
○	none of these

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MTH401:Quiz No. 2 Quiz Start Time: 01:02

Question # 7 of 10 (Start time: 01:03:47 PM, 28 January 2021)

The equation, $(x^2+1)\frac{d^2y}{dx^2}+2x\frac{dy}{dx}+6y=0$, has the singular point(s) at $x=$ __

Select the correct option

Relo

○	(I) ± 1
○	(II) i
○	(III) $-i$
◉	(IV) Both (II) and (III).

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Question # 8 of 10 (Start time: 01:04:01 PM, 28 January 2021)

The method of Frobenius always provide two solutions.

Select the correct option

○	True
◉	False

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Question # 9 of 10 (Start time: 01:04:12 PM, 28 January 2021)

Ordinary differential equation $\left(\frac{dy}{dx}\right)^3 + \frac{d^2y}{dx^2} + y = 9$, is of order ------.

Select the correct option

○	0
○	1
○	2
◉	3

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Question # 10 of 10 (Start time: 01:04:24 PM, 28 January 2021)

The damping force is _____to the instantaneous velocity

$$\frac{dx}{dt}$$

Select the correct option

◉	Proportional
○	Inverse proportional
○	Constant
○	None of these

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Thank you For Watching☺

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