MC200400548: AISHA ABBAS

Time Left 89 sec(s)

MTH603:Quiz No.2

Quiz Start Time: 05:35 PM, 22 June 2022

Question # 8 of 10 (Start time: 05:45:31 PM, 22 June 2022)

Total Marks: 1

Eigenvalues of a _____ matrix are all real.

Select the correct option

- antisymmetric
- triangular
- symmetric ✓
- rectangular

Question # 10 of 10 (Start time: 05:46:42 PM, 22 June 2022)

Total Marks:

Differences methods are iterative methods.

Select the correct option

- TRUE
- FALSE

MTH603:Quiz No.2

Question # 9 of 10 (Start time: 05:46:06 PM, 22 June 2022)

While using Jacobi method for the matrix

$$A = \begin{bmatrix} 1 & \sqrt{3} & \sqrt{2} \\ \sqrt{3} & 3 & 2 \\ \sqrt{2} & 2 & 1 \end{bmatrix}$$

the value of 'theta θ' can be found as

Select the correct option

- $\tan 2\theta = \frac{2a_{13}}{a_{33} - a_{11}}$
- $\tan 2\theta = \frac{2a_{13}}{a_{11} - a_{33}}$
- $\tan 2\theta = \frac{2a_{12}}{a_{11} - a_{22}}$
- $\tan 2\theta = \frac{2a_{23}}{a_{22} - a_{33}}$ ✓

as largest off-diagonal element is 2 and its place is a23 and a32. Its our choice to choose whether a23 or a32

MTH603:Quiz No.2

Question # 7 of 10 (Start time: 05:44:29 PM, 22 June 2022)

While using Jacobi method for the matrix

$$A = \begin{bmatrix} 1 & 1/4 & 1/3 \\ 1/4 & 1/3 & 1/2 \\ 1/3 & 1/2 & 1/5 \end{bmatrix}$$

the value of 'theta θ' can be found as

Select the correct option

- $\tan 2\theta = \frac{2a_{23}}{a_{22} - a_{33}}$
- $\tan 2\theta = \frac{2a_{12}}{a_{11} - a_{22}}$
- $\tan 2\theta = \frac{2a_{13}}{a_{33} - a_{11}}$
- $\tan 2\theta = \frac{2a_{13}}{a_{11} - a_{33}}$

MTH603:Quiz No.2

Quiz Start Time: 05:35 PM, 22 June 2022

Question # 1 of 10 (Start time: 05:35:17 PM, 22 June 2022)

Total Marks: 1

By using determinants, we can easily check that the solution of the given system of linear equation exits and it is unique.

Select the correct option

- FALSE
- TRUE



Click to Save Answer & Move to Next Question

Question # 2 of 10 (Start time: 05:36:59 PM, 22 June 2022)

While using power method, from the resultant normalize vector

$$x^{(2)} = 9.85490 \begin{pmatrix} 0.678958 \\ 1.0 \\ 1.123685 \end{pmatrix}$$

we have the largest eigen value and the corresponding eigenvector as

Select the correct option

- $\lambda = 9.85490,\ (X) = \begin{pmatrix} 1.123685 \\ 1.0 \\ 0.678958 \end{pmatrix}$
- $\lambda = 9.85490,\ (X) = \begin{pmatrix} 0.678958 \\ 1.0 \\ 1.123685 \end{pmatrix}$ ✓
- $\lambda = 1.123685,\ (X) = \begin{pmatrix} 9.85490 \\ 1.0 \\ 0.678958 \end{pmatrix}$
- $\lambda = 1.123685,\ (X) = \begin{pmatrix} 0.678958 \\ 1.0 \\ 9.85490 \end{pmatrix}$

Question # 4 of 10 (Start time: 05:39:44 PM, 22 June 2022) Total Marks: 1

In the context of Jacobi's method for finding Eigen values and Eigen vectors of a real symmetric matrix of order 2*2, if |-5| be its largest off-diagonal and its two equal diagonal values are '3' then which of the following will be its corresponding argument value 'theta' of Orthogonal Matrix?

Select the correct option

- Pi/6
- Pi/2
- Pi/3
- Pi/4

Click to Save Answer & Move to Next Question

MTH603:Quiz No.2

Quiz Start Time: 05:35 PM, 22 June 2022

Question # 3 of 10 (Start time: 05:38:19 PM, 22 June 2022)

Total Marks: 1

Let $[A]$ be a 3×3 real symmetric matrix with $|a_{23}|$ be the numerically largest of $f -$ diagonal element then using Jacobi's method the value of θ can be found by

Select the correct option

Reload Math Equations

- $\tan 2\theta = \frac{2a_{12}}{a_{22} - a_{11}}$
- $\tan 2\theta = \frac{2a_{13}}{a_{11} - a_{33}}$
- $\tan 2\theta = \frac{2a_{23}}{a_{22} - a_{33}}$
- $\tan 2\theta = \frac{2a_{13}}{a_{33} - a_{11}}$

sec(s)

MTH603:Quiz No.2

Quiz Start Time: 05:35 PM, 22 June 2022

Question # 6 of 10 (Start time: 05:42:35 PM, 22 June 2022)

Total Marks: 1

The dominant eigenvector of a matrix is an eigenvector corresponding to the eigenvalue of largest magnitude (for real numbers, smallest absolute value) of that matrix.

Select the correct option

O	FALSE
O	TRUE

Question # 5 of 10 (Start time: 05:41:22 PM, 22 June 2022)

A and its transpose matrix have _____ eigenvalues.

Select the correct option

- same
- different

Question # 5 of 10 (Start time: 10:07:52 AM, 22 June 2022) Total Marks: 1

The characteristics polynomial of a 3x 3 identity matrix is _____, if x is the eigen values of the given 3 x 3 identity matrix. where symbol ^ shows power.

Select the correct option

- (x+1)^3 shyd A
- x^3-1
- x^3+1
- (x-1)^3

Question # 3 of 10 (Start time: 12:05:59 AM, 22 June 2022)

While using Jacobi method for the matrix

$$A = \begin{bmatrix} 1 & 1/4 & 1/3 \\ 1/4 & 1/3 & 1/2 \\ 1/3 & 1/2 & 1/5 \end{bmatrix}$$

and 'theta θ=0.7191', the orthogonal matrix S1 will be given as

Select the correct option

- $S_1 = \begin{bmatrix} \cos 0.7191 & 0 & 0 \\ 0 & -\sin 0.7191 & 0 \\ 0 & 0 & 1 \end{bmatrix}$
- $S_1 = \begin{bmatrix} \cos 0.7191 & -\sin 0.7191 & 0 \\ \sin 0.7191 & \cos 0.7191 & 0 \\ 0 & 0 & 1 \end{bmatrix}$
- $S_1 = \begin{bmatrix} \cos 0.7191 & 0 & -\sin 0.7191 \\ 0 & 1 & 0 \\ \sin 0.7191 & 0 & \cos 0.7191 \end{bmatrix}$
- $S_1 = \begin{bmatrix} 1 & 0 & 0 \\ 0 & \cos 0.7191 & -\sin 0.7191 \\ 0 & \sin 0.7191 & \cos 0.7191 \end{bmatrix}$ ✓

MTH602 Quiz No.2

Question # 2 of 10 (Start time: 10:04:21 AM, 21 June 2022)

While using power method, the computed vector

$$w^{(2)} = \begin{pmatrix} 1.8 \\ -0.8 \\ 0.6 \end{pmatrix}$$

will be in normalized form as

Select the correct option

- $w^{(2)} = 2.8 \begin{pmatrix} 1.8/2.8 \\ -0.8/2.8 \\ 1 \end{pmatrix}$
- $w^{(2)} = 0.6 \begin{pmatrix} 1.8/0.6 \\ -0.8/0.6 \\ 1 \end{pmatrix}$
- $w^{(2)} = 1.8 \begin{pmatrix} 1 \\ -0.8/1.8 \\ 0.6/1.8 \end{pmatrix}$
- $w^{(2)} = -0.8 \begin{pmatrix} -1.8/0.8 \\ 1 \\ -0.6/0.8 \end{pmatrix}$

While using Jacobi method for the matrix

$$A = \begin{bmatrix} 1 & 2 & \sqrt{2} \\ 2 & 3 & \sqrt{2} \\ \sqrt{2} & \sqrt{2} & 1 \end{bmatrix}$$

the value of 'theta θ' can be found as

Select the correct option

○	$\tan 2\theta = \frac{2a_{13}}{a_{33} - a_{11}}$
○	$\tan 2\theta = \frac{2a_{13}}{a_{11} - a_{33}}$
○	$\tan 2\theta = \frac{2a_{23}}{a_{22} - a_{33}}$
○	$\tan 2\theta = \frac{2a_{12}}{a_{11} - a_{22}}$



MTH603:Quiz No.2

Question # 1 of 10 (Start time: 03:39:36 PM, 22 June 2022)

The Jacobi iteration converges, if A is strictly diagonally dominant.

Select the correct option

- TRUE
- FALSE

Question # 6 of 10 (Start time: 04:14:34 PM, 22 June 2022)

Every non-zero vector x is an eigenvector of the identity matrix with Eigen value .....

Select the correct option

- one
- three
- two
- four

Let $|A|$ be a 3×3 real symmetric matrix with $|a_{13}|$ be the numerically largest off – diagonal element then using Jacobi's method the value of θ can be found by

$$\tan 2\theta = \frac{2a_{13}}{a_{11} - a_{33}}$$

$$\tan 2\theta = \frac{2a_{13}}{a_{11} - a_{33}}$$

$$\tan 2\theta = \frac{2a_{23}}{a_{33} - a_{22}}$$

$$\tan 2\theta = \frac{2a_{23}}{a_{22} - a_{33}}$$

MC210400328: MUHAMMAD FARHAN

Time Left 89 sec(s)

MTH603:Quiz No.2

Quiz Start Time: 03:54 PM, 22 June 2022

Question # 9 of 10 (Start time: 04:04:59 PM, 22 June 2022)

Total Marks: 1

The Gauss-Seidel method is applicable to strictly diagonally dominant or symmetric positive definite matrices A.

Select the correct option

- TRUE
- FALSE

Click to Save Answer & Move to Next Question

Question # 7 of 10 (Start time: 04:16:03 PM, 22 June 2022)

By using determinants, we can easily check that the solution of the given system of linear equation _____ and it is

Select the correct option

- exists, consistent
- nontrivial, inconsistent
- exits, unique
- trivial, unique

Question # 9 of 10 (Start time: 04:18:42 PM, 22 June 2022)

Central Difference method is the finite difference method.

Select the correct option

- FALSE
- TRUE



MTH603:Quiz No.2

Question # 4 of 10 (Start time: 04:16:35 PM, 22 June 2022)

The determinant of a _____ matrix is the product of the diagonal elements.

Select the correct option

- diagonal
- lower triangular
- scalar
- upper triangular

While using power method, the computed vector

$$u^{(2)} = \begin{pmatrix} 1.8 \\ -0.8 \\ 0.6 \end{pmatrix}$$

will be in normalized form as

Select the correct option

- $u^{(2)} = -0.8 \begin{pmatrix} -1.8/0.8 \\ 1 \\ -0.6/0.8 \end{pmatrix}$
- $u^{(2)} = 1.8 \begin{pmatrix} 1 \\ -0.8/1.8 \\ 0.6/1.8 \end{pmatrix}$
- $u^{(2)} = 2.8 \begin{pmatrix} 1.8/2.8 \\ -0.8/2.8 \\ 1 \end{pmatrix}$
- $u^{(2)} = 0.6 \begin{pmatrix} 1.8/0.6 \\ -0.8/0.6 \\ 1 \end{pmatrix}$

MTH603:Quiz No.2

Question # 10 of 10 (Start time: 04:20:11 PM, 22 June 2022)

The Jacobi iteration _____, if A is strictly diagonally dominant.

Select the correct option

- diverges
- converges ✓

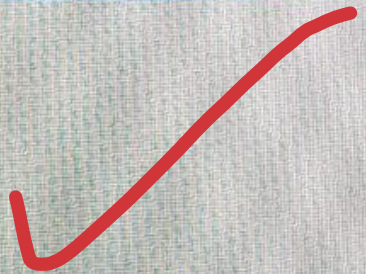
MTH603:Quiz No.2

Question # 9 of 10 (Start time: 04:22:31 PM, 22 June 2022)

In Jacobi's Method, the rate of convergence is quite _____ compared with other methods.

Select the correct option

- fast
- slow



Question # 7 of 10 (Start time: 04:19:58 PM, 22 June 2022)

Iterative algorithms can be more rapid than direct methods.

Select the correct option

- TRUE
- FALSE

Question # 8 of 10 (Start time: 04:21:21 PM, 22 June 2022)

While using power method, the computed vector

$$u^{(2)} = \begin{pmatrix} 6.571428 \\ 9.57142 \\ 11.21423 \end{pmatrix}$$

will be in normalized form as

Select the correct option

- $u^{(2)} = 11.21423 \begin{pmatrix} 0.585990 \\ 0.853506 \\ 1 \end{pmatrix}$
- $u^{(2)} = 9.57142 \begin{pmatrix} 0.686567 \\ 1 \\ 2.976547 \end{pmatrix}$
- $u^{(2)} = 12.21423 \begin{pmatrix} 0.456142 \\ 0.783628 \\ 1 \end{pmatrix}$
- $u^{(2)} = 6.571428 \begin{pmatrix} 1 \\ 1.456521 \\ 1.898872 \end{pmatrix}$

MTH603:Quiz No.2

Question # 6 of 10 (Start time: 04:18:43 PM, 22 June 2022)

Two matrices with the same characteristic polynomial need not be similar.

Select the correct option

- TRUE
- FALSE

Question # 5 of 10 (Start time: 04:17:29 PM, 22 June 2022)

While using Jacobi method for the matrix

$$A = \begin{bmatrix} 1 & 1/4 & 1/3 \\ 1/4 & 1/3 & 1/2 \\ 1/3 & 1/2 & 1/5 \end{bmatrix}$$

the value of 'theta θ' can be found as

Select the correct option

- $\tan 2\theta = \dfrac{2a_{13}}{a_{11} - a_{33}}$
- $\tan 2\theta = \dfrac{2a_{12}}{a_{11} - a_{22}}$
- $\tan 2\theta = \dfrac{2a_{23}}{a_{22} - a_{33}}$
- $\tan 2\theta = \dfrac{2a_{13}}{a_{33} - a_{11}}$

MTH603:Quiz No.2

Question # 8 of 10 (Start time: 04:17:18 PM, 22 June 2022)

Two matrices with the same characteristic polynomial need not be similar

Select the correct option

- FALSE
- TRUE

Question # 3 of 10 (Start time: 04:15:20 PM, 22 June 2022)

Below are all the finite difference methods EXCEPT _____.

Select the correct option

- jacobi's method
- newton's backward difference method
- Stirling formula
- Forward difference method

MTH603 Quiz No. 2

Question # 3 of 10 (Start time: 04:17:18 PM, 22 June 2020)

Two matrices with the same characteristic polynomial need not be similar

Select the correct option

- FALSE
- TRUE

MTH603:Quiz No.2

Question # 2 of 10 (Start time: 04:14:22 PM, 22 June 2022)

How many Eigen vectors will exist corresponding to the function: Exp(ax) = e^ax, when the matrix operator is of differentiation?

Select the correct option

- Finite Multiple
- None
- Infinite many
- Unique

MTH603:Quiz No.2

Question # 2 of 10 (Start time: 04:08:19 PM, 22 June

Exact solution of 2/3 is not exists.

Select the correct option

- TRUE
- FALSE

MC210400328: MUHAMMAD FARHAN

Time Left 89 sec(s)

MTH603:Quiz No.2

Quiz Start Time: 03:54 PM, 22 June 2022

Question # 8 of 10 (Start time: 04:03:16 PM, 22 June 2022)

Total Marks: 1

The dominant or principal eigenvector of a matrix is an eigenvector corresponding to the eigenvalue of largest magnitude (for real numbers, largest absolute value) of that matrix.

Select the correct option

- TRUE
- FALSE

Click to Save Answer & Move to Next Question

MC210400328: MUHAMMAD FARHAN

Time Left 87 sec(s)

MTH603:Quiz No.2

Quiz Start Time: 03:54 PM, 22 June 2022

Question # 10 of 10 (Start time: 04:05:48 PM, 22 June 2022)

Total Marks: 1

While using power method, the computed vector

$$u^{(2)} = \begin{pmatrix} 5.571428 \\ 9.57142 \\ 12.21423 \end{pmatrix}$$

will be in normalized form as

Select the correct option

Reload Math Equations

- $u^{(2)} = 5.571428 \begin{pmatrix} 1 \\ 1.717938 \\ 2.192286 \end{pmatrix}$
- $u^{(2)} = 12.21423 \begin{pmatrix} 0.456142 \\ 0.783628 \\ 1 \end{pmatrix}$
- $u^{(2)} = 9.57142 \begin{pmatrix} 0.582090 \\ 1 \\ 1.276142 \end{pmatrix}$
- $u^{(2)} = 3.523498 \begin{pmatrix} 1 \\ 1.876547 \\ 2.937987 \end{pmatrix}$

Click to Save Answer & Move to Next Question

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Time Left 88 sec(s)

MTH603:Quiz No.2

Quiz Start Time: 03:54 PM, 22 June 2022

Question # 7 of 10 (Start time: 04:01:46 PM, 22 June 2022)

Total Marks: 1

While using Jacobi method for the matrix

$$A = \begin{bmatrix} 1 & 1/4 & 1/3 \\ 1/4 & 1/3 & 1/2 \\ 1/3 & 1/2 & 1/5 \end{bmatrix}$$

the value of 'theta θ' can be found as

Select the correct option

Reload Math Equations

- $\tan 2\theta = \frac{2a_{13}}{a_{33} - a_{11}}$
- $\tan 2\theta = \frac{2a_{13}}{a_{11} - a_{33}}$
- $\tan 2\theta = \frac{2a_{23}}{a_{22} - a_{33}}$
- $\tan 2\theta = \frac{2a_{12}}{a_{11} - a_{22}}$

Click to Save Answer & Move to Next Question

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Time Left 89 sec(s)

MTH603:Quiz No.2

Quiz Start Time: 03:54 PM, 22 June 2022

Question # 5 of 10 (Start time: 03:59:34 PM, 22 June 2022)

Total Marks: 1

Differences methods are iterative methods.

Select the correct option

- TRUE
- FALSE

Click to Save Answer & Move to Next Question

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Time Left 88 sec(s)

MTH603:Quiz No.2

Quiz Start Time: 03:54 PM, 22 June 2022

Question # 6 of 10 (Start time: 04:00:55 PM, 22 June 2022)

Total Marks: 1

Let $[A]$ be a 3×3 real symmetric matrix with $|a_{13}|$ be the numerically largest off $-$ diagonal element then using Jacobi's method the value of θ can be found by

Select the correct option

Reload Math Equations

- $\tan 2\theta = \frac{2a_{23}}{a_{22} - a_{33}}$
- $\tan 2\theta = \frac{2a_{12}}{a_{11} - a_{22}}$
- $\tan 2\theta = \frac{2a_{13}}{a_{11} - a_{33}}$
- $\tan 2\theta = \frac{2a_{23}}{a_{33} - a_{22}}$

Click to Save Answer & Move to Next Question

MC210400328: MUHAMMAD FARHAN

Time Left 89 sec(s)

MTH603:Quiz No.2

Quiz Start Time: 03:54 PM, 22 June 2022

Question # 4 of 10 (Start time: 03:58:12 PM, 22 June 2022)

Total Marks: 1

While using Jacobi method for the matrix

$$A = \begin{bmatrix} 2 & -1 & 0 \\ -1 & 2 & 0 \\ 0 & 0 & 2 \end{bmatrix}$$

and 'theta θ =pi/4', the orthogonal matrix S1

Select the correct option

Reload Math Equations

- $S_1 = \begin{bmatrix} \cos\frac{\pi}{4} & 0 & 0 \\ 0 & -\sin\frac{\pi}{4} & 0 \\ 0 & 0 & 1 \end{bmatrix}$
- $S_1 = \begin{bmatrix} \cos\frac{\pi}{4} & 0 & -\sin\frac{\pi}{4} \\ 0 & 1 & 0 \\ \sin\frac{\pi}{4} & 0 & \cos\frac{\pi}{4} \end{bmatrix}$
- $S_1 = \begin{bmatrix} 1 & 0 & 0 \\ 0 & \cos\frac{\pi}{4} & -\sin\frac{\pi}{4} \\ 0 & \sin\frac{\pi}{4} & \cos\frac{\pi}{4} \end{bmatrix}$
- $S_1 = \begin{bmatrix} \cos\frac{\pi}{4} & -\sin\frac{\pi}{4} & 0 \\ \sin\frac{\pi}{4} & \cos\frac{\pi}{4} & 0 \\ 0 & 0 & 1 \end{bmatrix}$

Click to Save Answer & Move to Next Question

MC210400328: MUHAMMAD FARHAN

Time Left 88 sec(s)

MTH603:Quiz No.2

Quiz Start Time: 03:54 PM, 22 June 2022

Question # 2 of 10 (Start time: 03:55:47 PM, 22 June 2022)

Total Marks: 1

In Jacobi's Method, the rate of convergence is quite _____ compared with other methods.

Select the correct option

- fast
- slow

Click to Save Answer & Move to Next Question

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Time Left 88 sec(s)

MTH603:Quiz No.2

Quiz Start Time: 03:54 PM, 22 June 2022

Question # 3 of 10 (Start time: 03:56:29 PM, 22 June 2022)

Total Marks: 1

The dominant eigenvector of a matrix is an eigenvector corresponding to the eigenvalue of largest magnitude (for real numbers, smallest absolute value) of that matrix.

Select the correct option

- TRUE
- FALSE

Click to Save Answer & Move to Next Question

uestion # 9 of 10 (Start time: 03:46:58 PM, 22 June 2022)

Iterative algorithms can be more rapid than direct methods.

Select the correct option

- FALSE
- TRUE

MC210400328: MUHAMMAD FARHAN

Time Left 89 sec(s)

MTH603:Quiz No.2

Quiz Start Time: 03:54 PM, 22 June 2022

Question # 1 of 10 (Start time: 03:54:32 PM, 22 June 2022)

Total Marks: 1

The absolute value of a determinant (|detA|) is the product of the absolute values of the eigenvalues of matrix A

Select the correct option

- TRUE
- FALSE

Click to Save Answer & Move to Next Question

While using Jacobi method for the matrix

$$A = \begin{bmatrix} 2 & 0 & 0 \\ 0 & 2 & 1 \\ 0 & 1 & 2 \end{bmatrix}$$

and 'theta θ =pi/4' the orthogonal matrix S1 will be given as

Select the correct option

- $S_1 = \begin{bmatrix} \cos\frac{\pi}{4} & 0 & -\sin\frac{\pi}{4} \\ 0 & 1 & 0 \\ \sin\frac{\pi}{4} & 0 & \cos\frac{\pi}{4} \end{bmatrix}$
- $S_1 = \begin{bmatrix} \cos\frac{\pi}{4} & -\sin\frac{\pi}{4} & 0 \\ \sin\frac{\pi}{4} & \cos\frac{\pi}{4} & 0 \\ 0 & 0 & 1 \end{bmatrix}$
- $S_1 = \begin{bmatrix} 1 & 0 & 0 \\ 0 & \cos\frac{\pi}{4} & -\sin\frac{\pi}{4} \\ 0 & \sin\frac{\pi}{4} & \cos\frac{\pi}{4} \end{bmatrix}$
- $S_1 = \begin{bmatrix} \cos\frac{\pi}{4} & 0 & 0 \\ 0 & -\sin\frac{\pi}{4} & 0 \\ 0 & 0 & 1 \end{bmatrix}$

Question # 8 of 10 (Start time: 03:46:01 PM, 22 June 2022)

Power method is applicable if the eigen values are real and distinct.

Select the correct option

O	TRUE
O	FALSE

Question # 4 of 10 (Start time: 03:42:25 PM, 22 June 2022)

Let [A] be a 3x3 real symmetric matrix with

$$|a_{23}|$$

be numerically the largest off-diagonal element of A, then we can construct orthogonal matrix S1 by Jacobi's method as

Select the correct option

- $\begin{bmatrix} 1 & 0 & 0 \\ 0 & \cos\theta & -\sin\theta \\ 0 & \sin\theta & \cos\theta \end{bmatrix}$
- $\begin{bmatrix} \cos\theta & 0 & -\sin\theta \\ 0 & 1 & 0 \\ \sin\theta & 0 & \cos\theta \end{bmatrix}$
- $\begin{bmatrix} 1 & 0 & 0 \\ 0 & \cos\theta & -\cos\theta \\ 0 & \sin\theta & -\sin\theta \end{bmatrix}$
- $\begin{bmatrix} \cos\theta & -\sin\theta & 0 \\ \sin\theta & \cos\theta & 0 \\ 0 & 0 & 1 \end{bmatrix}$

uestion # 5 of 10 (Start time: 03:43:06 PM, 22 June 2022)

The determinant of a _____ matrix is the product of the diagonal elements.

Select the correct option

- upper triangular
- lower triangular
- diagonal
- scalar

TH603:Quiz No.2

uestion # 2 of 10 (Start time: 03:40:25 PM, 22 June 2022)

Differences methods find the _____ solution of the system.

Select the correct option

- Analytical
- numerical

Question # 2 of 10 (Start time: 12:53:58 PM, 22 June 2022)

The Jacobi's method is a method of solving a matrix equation on a matrix that has no zeros along its _____

Select the correct option

- last row
- first row
- last column
- main diagonal

Click to Save Answer & Move to Ne

Question # 5 of 10 (Start time: 12:56:50 PM, 22 June 2022)

Total Marks: 1

An eigenvector V is said to be normalized if the coordinate of largest magnitude is equal to zero.

Select the correct option

- TRUE
- FALSE

Click to Save Answer & Move to Next Question

Question # 7 of 10 (Start time: 10:09:47 AM, 22 June 2022)

Total Marks: 1

The Power method can be used *only* to find the eigenvalue of A that is largest in absolute *value*—we call this eigenvalue the dominan*t* *e*igenvalue of A.

Select the correct option

- FALSE
- TRUE

Question # 8 of 10 (Start time: 10:11:14 AM, 22 June 2022)

Total Marks: 1

How many Eigen values will exist corresponding to the function; Exp(ax) = e^ax, when the matrix operator is of differentiation?

Select the correct option

- Finite Multiple
- None
- Unique
- Infinite many

Question # 1 of 10 (Start time: 04:32:56 PM, 22 June 2022)

Power method is applicable if the eigen values are _____

Select the correct option

○	real and distinct
○	positive and distinct
○	negative and distinct
○	real and equal

Question # 6 of 10 (Start time: 10:09:04 AM, 22 June 2022) Total Marks: 1

By using determinants, we can easily check that the solution of the given system of linear equation _____ and it is _____.

Select the correct option

- exists, consistent
- exits, unique
- nontrivial, inconsistent
- trivial, unique