



BMATS101

	<b>b.</b>	Solve the system of equations by Gauss-Jordan method. $x + y + z = 9$ ; $2x + y - z = 0$ ; $2x + 5y + 7z = 52$ .	7	L3	CO4
	<b>c.</b>	Find the largest eigen value and the corresponding eigen vector of the matrix $A = \begin{bmatrix} 2 & -1 & 0 \\ -1 & 2 & -1 \\ 0 & -1 & 2 \end{bmatrix}$ taking $[1 \ 1 \ 1]^T$ as initial eigen vector, using power method.	7	L3	CO4
<b>OR</b>					
<b>Q.10</b>	<b>a.</b>	Find the values of $\lambda$ and $\mu$ for which the system $x + y + z = 6$ ; $x + 2y + 3z = 10$ ; $x + 2y + \lambda z = \mu$ has i) Unique solution ii) Infinitely many solutions iii) no solution.	8	L2	CO4
	<b>b.</b>	Solve the following system of equations by Gauss-Elimination method $2x + y + 4z = 12$ , $4x + 11y - z = 33$ , $8x - 3y + 2z = 20$ .	7	L3	CO4
	<b>c.</b>	Using modern mathematical tool, write a program/code to test the consistency of the equations $x + 2y - z = 1$ , $2x + y + 4z = 2$ , $3x + 3y + 4z = 1$ .	5	L3	CO5

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