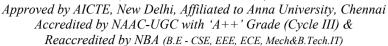
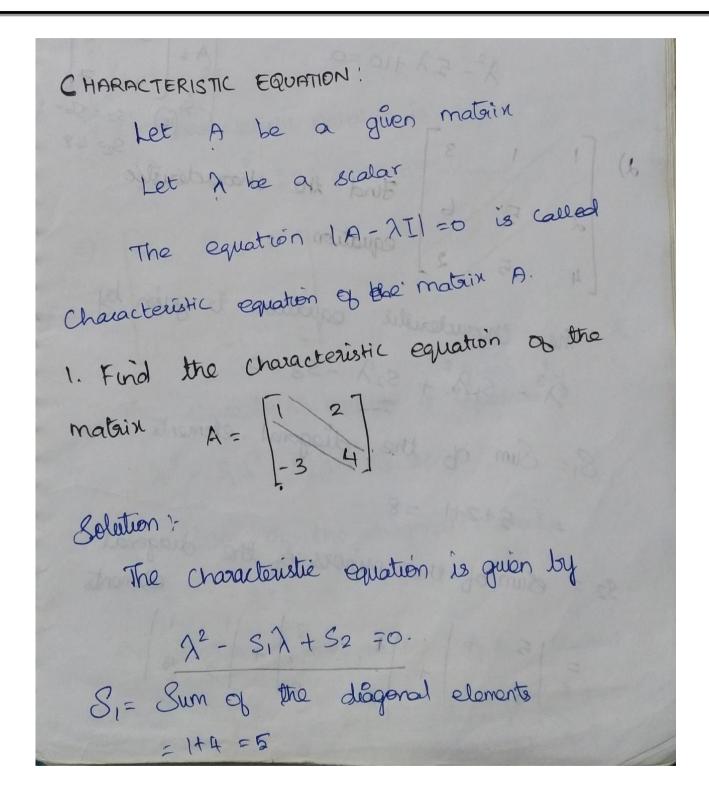


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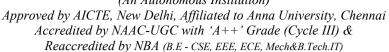








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$$S_2 = |A|$$

$$= \begin{vmatrix} 1 & 2 \\ -3 & 4 \end{vmatrix} = 4 \cdot (-6) = 4 + 6 = 10$$

$$S_2 = 10$$

$$X_1 = 10$$

$$X_2 = 5 + 10 = 0$$

$$X_3 = 5 + 10 = 0$$

$$X_4 = \begin{bmatrix} 4 & 4 & 7 \\ 4 & 7 & 7 \\ 4 & 7 & 7 \end{bmatrix}$$

$$X_2 = 5 + 10 = 0$$

$$X_3 = 5 + 10 = 0$$

$$X_4 = \begin{bmatrix} 5 & 2 \\ 4 & 7 \\ 7 & 7 \end{bmatrix}$$

$$X_4 = \begin{bmatrix} 5 & 2 \\ 4 & 7 \end{bmatrix}$$

$$X_2 = 5 + 5 = 5$$

$$X_3 = 5 + 5 = 5$$

$$X_4 = 5 + 5 = 5$$

$$X_4 = 5 + 5 = 5$$

$$X_5 = 5 = 5$$

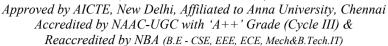
$$X_6 = 5 + 5 = 5$$

$$X_7 = 5 = 5 = 5$$

$$X_7$$



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$$= (10-30) + (2-12) + (5-2)$$

$$= -20-10+3$$

$$8_{2} = -27$$

$$8_{3} = |P|$$

$$= -20-1 (4-24) + 3(10-20)$$

$$= -20 + 20 + 3(-10)$$

$$8_{3} = -30$$
The characteristic equation is
$$\lambda^{2} - 8\lambda^{2} - 37\lambda + 30 = 0.$$

$$3) \begin{bmatrix} 3 & 1 & 1 \\ 1 & 3 & -1 \\ 1 & -1 & 3 \end{bmatrix}$$
The characteristic equation is equation if
$$\lambda^{3} - 3(\lambda^{2} + 52\lambda^{2} + 53 = 0.$$

$$8_{1} = 8 \text{ arm ob the diagonal elements}$$

$$= 8 + 3 + 3 = 9$$

$$8_{2} = 8 \text{ arm ob the nurious ob the diagonal elements}$$

$$= 8 + 3 + 3 = 9$$

$$8_{3} = 8 \text{ arm ob the nurious ob the diagonal elements}$$

$$= 8 + 3 + 3 = 9$$

$$8_{4} = 8 + 3 + 3 = 9$$

$$8_{5} = 8 + 3 + 3 = 9$$

$$8_{6} = 8 + 3 + 3 = 9$$

$$8_{7} = 8 + 3 + 3 = 9$$

$$8_{8} = 8 + 3 + 3 = 9$$

$$8_{9} = 8 + 3 + 3 = 9$$

$$8_{1} = 8 + 3 + 3 = 9$$

$$8_{1} = 8 + 3 + 3 = 9$$

$$8_{2} = 8 + 3 + 3 = 9$$

$$8_{3} = 8 + 3 + 3 = 9$$

$$8_{4} = 8 + 3 + 3 = 9$$

$$8_{5} = 8 + 3 + 3 = 9$$

$$8_{7} = 8 + 3 + 3 = 9$$

$$8_{8} = 8 + 3 + 3 = 9$$

$$8_{1} = 8 + 3 + 3 = 9$$

$$8_{2} = 8 + 3 + 3 = 9$$

$$8_{3} = 8 + 3 + 3 = 9$$

$$8_{4} = 8 + 3 + 3 = 9$$

$$8_{5} = 8 + 3 + 3 = 9$$

$$8_{7} = 8 + 3 + 3 = 9$$

$$8_{8} = 8 + 3 + 3 = 9$$

$$8_{9} = 8 + 3 + 3 = 9$$

$$8_{9} = 8 + 3 + 3 = 9$$

$$8_{1} = 8 + 3 + 3 = 9$$

$$8_{2} = 8 + 3 + 3 = 9$$

$$8_{3} = 8 + 3 + 3 = 9$$

$$8_{4} = 8 + 3 + 3 = 9$$

$$8_{5} = 8 + 3 + 3 = 9$$

$$8_{7} = 8 + 3 + 3 = 9$$

$$8_{8} = 8 + 3 + 3 = 9$$

$$8_{1} = 8 + 3 + 3 = 9$$

$$8_{2} = 8 + 3 + 3 = 9$$

$$8_{3} = 8 + 3 + 3 = 9$$

$$8_{4} = 8 + 3 + 3 = 9$$

$$8_{4} = 8 + 3 + 3 = 9$$

$$8_{4} = 8 + 3 + 3 = 9$$

$$8_{5} = 8 + 3 + 3 = 9$$

$$8_{7} = 8 + 3 + 3 = 9$$

$$8_{8} = 8 + 3 + 3 = 9$$

$$8_{8} = 8 + 3 + 3 = 9$$

$$8_{1} = 8 + 3 + 3 = 9$$

$$8_{2} = 8 + 3 + 3 = 9$$

$$8_{3} = 8 + 3 + 3 = 9$$

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$$8_{5} = 8 + 3 + 3 = 9$$

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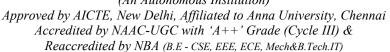
$$8_{8} = 8 + 3 + 3 = 9$$

$$8_{8} = 8 + 3 + 3 = 9$$

$$8_{8} = 8 + 3$$



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$$= (9 - 1) + (3+1) + (-1+3)$$

$$= 8+8+8 = 24$$

$$88 = |A|$$

$$= 3(9-1) - 1(3+1) + 1(-1-3)$$

$$= 24-4-4$$

$$83 = 16$$

$$\therefore \text{ The characteristic equation is }$$

$$A^{2} - 9A^{2} + 24A - 16 = 0$$

$$A) \begin{bmatrix} 7 - 2 & 0 \\ -2 & 6 & -2 \\ 0 & -2 & 5 \end{bmatrix}$$
The characteristic equation is guion by
$$A^{3} - 5A^{2} + 52A - 53 = 0.$$

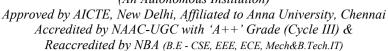
$$8_{1} = Sum ob the diagonal elements$$

$$= 7+6+5$$

$$= 18$$



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Sq = Sum of the minor of the diagonal claments

$$= \begin{vmatrix} 6 & -2 \\ 2 & 5 \end{vmatrix} + \begin{vmatrix} 7 & -2 \\ 0 & 5 \end{vmatrix} + \begin{vmatrix} 7 & -2 \\ -2 & 6 \end{vmatrix}$$

$$= \begin{vmatrix} (30-4) + (35-0) + (42-4) \end{vmatrix}$$

$$= 36 + 3 + 3 + 38$$

$$= 99$$
S3 =  $|A|$ 

$$= 1820 - A) - (-2)(-10-0) + 0(4-0)$$

$$= 182 - 20 = 162$$

$$\therefore The Characteristic equation is

A^3 - 18A^2 + 99A - 162 = 0.

The Characteristic polynomial of the characteristic polynomial of doing while

$$= \begin{bmatrix} 6 & -2 \\ 2 & 1 \end{bmatrix}$$
The Characteristic polynomial of the characteristic p$$



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Reaccredited by NBA (B.E - CSE, EEE, ECE, Mech&B.Tech.IT)

$$S_1 = Sum$$
 of the diagonal elements
$$= 6+3+3 = 12$$

$$S_2 = Sum$$
 of the minors of the diagonal elements
$$= \begin{vmatrix} 3 & -1 \\ -1 & 3 \end{vmatrix} + \begin{vmatrix} 6 & 2 \\ 2 & 3 \end{vmatrix} + \begin{vmatrix} 6 & -2 \\ -2 & 3 \end{vmatrix}$$

$$= 8+14+14 = 36$$

$$S_3 = |A|$$

$$= 6(8)+2(-6+2)+2(2-6)$$

$$= 48-8-8$$

$$S_3 = 32$$

$$The Characteristic polynomial as the deformant of the characteristic equation of the matrix all called Eigen Value or the matrix all called Eigen Value or the characteristic equation of the matrix all called Eigen Value or the characteristic equation of the matrix all called Eigen Value or the characteristic equation of the matrix all called Eigen Value or the characteristic value.$$