

JEE MAIN MATRICES — INVERTIBLE MATRICES — PYQS

Max. Marks: 8
Questions: 2

Section A (MCQ) — 1 question

Q.1 Let A , B and C be three 2×2 matrices with real entries such that $B = (I + A)^{-1}$ and $A + C = I$.

If $BC = \begin{bmatrix} 1 & -5 \\ -1 & 2 \end{bmatrix}$ and $CB \begin{bmatrix} x_1 \\ x_2 \end{bmatrix} = \begin{bmatrix} 12 \\ -6 \end{bmatrix}$, then $x_1 + x_2$ is

[JEE Main 2026 (Online) 28th January Morning Shift]

- (1) 4 (2) 2 (3) 0 (4) -2

Scan or tap for the
full solution



Section B (Numerical) — 1 question

Q.2 Consider the matrices $A = \begin{bmatrix} 2 & -2 \\ 4 & -2 \end{bmatrix}$ and

$B = \begin{bmatrix} 3 & 9 \\ 1 & 3 \end{bmatrix}$. If matrices P and Q are such that

$PA = B$ and $AQ = B$, then the absolute value of the sum of the diagonal elements of $2(P + Q)$ is _____.

[JEE Main 2026 (Online) 2nd April Evening Shift]

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full solution



ANSWER KEY

Section A (MCQ) — 1 question

Ques.	1									
Ans.	3									

Section B (Numerical) — 1 question

Ques.	2									
Ans.	34									