

JEE MAIN MATRICES — TRANSPOSE, SYMMETRIC AND SKEW-SYMMETRIC MATRICES — PYQS

Max. Marks: 4
Questions: 1

Section B (Numerical) — 1 question

- Q.1** Let M denote the set of all real matrices of order 3×3 and let $S = \{-3, -2, -1, 1, 2\}$. Let
 $S_1 = \{A = [a_{ij}] \in M : A = A^T \text{ and } a_{ij} \in S, \forall i, j\}$,
 $S_2 = \{A = [a_{ij}] \in M : A = -A^T \text{ and } a_{ij} \in S, \forall i, j\}$,
 $S_3 = \{A = [a_{ij}] \in M : a_{11} + a_{22} + a_{33} = 0 \text{ and } a_{ij} \in S, \forall i, j\}$.
 If $n(S_1 \cup S_2 \cup S_3) = 125\alpha$, then α equals

[JEE Main 2025 (Online) 28th January Morning Shift]

Scan or tap for the
full solution



ANSWER KEY

Ques.	1						
Ans.	1613						