PART 1 - MATHEMATICS

Topic : Permutations and combinations

SECTION–1 : (Maximum Marks : 4)

- This section contains **ONE** question.
- The answer to each question is a **NON-NEGATIVE INTEGER**.
- For each question, enter the correct integer corresponding to the answer in the place designated to enter the answer.
- Answer to each question will be evaluated according to the following marking scheme :

Full Marks : +4 If ONLY the correct answer is entered;
Zero Marks : 0 In all other cases.

1. Let S be the set of all seven-digit numbers that can be formed using the digits 0, 1 and 2. For example, 2210222 is in S, but 0210222 is NOT in S.
Then the number of elements x in S such that at least one of the digits 0 and 1 appears exactly twice in x, is equal to _____. [JEE Advanced 2025 Paper 1]

Scan or tap for the full solution

Space for Rough Work

JEE ADVANCED PERMUTATIONS AND COMBINATIONS — DERANGEMENTS AND INCLUSION–EXCLUSION (JEE) — PYQS

Test Pattern : **JEE (Advanced)**

ANSWER KEY

SECTION–1																													
Ques.	1																												
Ans.	**762**																												