

PART 1 - MATHEMATICS

Topic : Permutations and combinations

SECTION-B : (Maximum Marks : 12)

This section contains **THREE** questions.

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. The number of ways to distribute 10 identical red pens and 14 identical blue pens among four persons such that each person gets 6 pens, is _____.

[JEE Advanced 2026 Paper 1]

Scan or tap for the full solution 

2. 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]

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3. A group of 9 students, $s_1, s_2, \dots, s_9$, is to be divided to form three teams X, Y , and Z of sizes 2, 3, and 4, respectively. Suppose that s_1 cannot be selected for the team X , and s_2 cannot be selected for the team Y . Then the number of ways to form such teams, is _____.

[JEE Advanced 2024 Paper 1]

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Space for Rough Work

JEE ADVANCED PERMUTATIONS AND COMBINATIONS — PYQS

Test Pattern : **JEE (Advanced)**

ANSWER KEY

[illegible]