

JEE MAIN PERMUTATIONS AND COMBINATIONS — PERMUTATIONS WHEN ALL OBJECTS ARE DISTINCT — PYQS

Max. Marks: 16

Questions: 4

Section A (MCQ) — 3 questions

- Q.1** The number of 4-letter words, with or without meaning, each consisting of two vowels and two consonants that can be formed from the letters of the word INCONSEQUENTIAL, without repeating any letter, is :

[JEE Main 2026 (Online) 6th April Morning Shift]

- (1) 2670 (2) 2840 (3) 2920 (4) 3600

Scan or tap for the
full solution 

- Q.2** If all the words with or without meaning made using all the letters of the word "KANPUR" are arranged as in a dictionary, then the word at 440th position in this arrangement is :

[JEE Main 2025 (Online) 29th January Evening Shift]

- (1) PRNAKU (2) PRKAUN
(3) PRKANU (4) PRNAUK

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full solution 

- Q.3** The number of words, which can be formed using all the letters of the word "DAUGHTER", so that all the vowels never come together, is :

[JEE Main 2025 (Online) 23rd January Morning Shift]

- (1) 34000 (2) 37000 (3) 35000 (4) 36000

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full solution 

Section B (Numerical) — 1 question

- Q.4** All five letter words are made using all the letters A, B, C, D, E and arranged as in an English dictionary with serial numbers. Let the word at serial number n be denoted by W_n . Let the probability $P(W_n)$ of choosing the word W_n satisfy $P(W_n) = 2P(W_{n-1})$, $n > 1$.

If $P(\text{CDBEA}) = \frac{2^\alpha}{2^\beta - 1}$, $\alpha, \beta \in \mathbb{N}$, then $\alpha + \beta$ is equal to _____

[JEE Main 2025 (Online) 3rd April Morning Shift]

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ANSWER KEY

Section A (MCQ) — 3 questions

Ques.	1	2	3								
Ans.	4	2	4								

Section B (Numerical) — 1 question

Ques.	4						
Ans.	183						