

JEE MAIN BINOMIAL THEOREM — DIVISIBILITY AND REMAINDER PROBLEMS (JEE) — PYQS

Max. Marks: 12

Questions: 3

Section A (MCQ) — 2 questions

Q.1 Given below are two statements :

Statement-I: $25^{13} + 20^{13} + 8^{13} + 3^{13}$ is divisible by 7.

Statement-II: The integral part of $(7 + 4\sqrt{3})^{25}$ is an odd number.

In the light of the above statements, choose the **correct answer** from the options given below :

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

- (1) Statement-I is false but Statement-II is true
- (2) Both Statement-I and Statement-II are false
- (3) Both Statement-I and Statement-II are true
- (4) Statement-I is true but Statement-II is false

Scan or tap for the
full solution



Q.2 The remainder when $((64)^{(64)})^{(64)}$ is divided by 7 is equal to [JEE Main 2025 (Online) 7th April Morning Shift]

- (1) 4
- (2) 6
- (3) 3
- (4) 1

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full solution



Section B (Numerical) — 1 question

Q.3 The product of the last two digits of $(1919)^{1919}$ is

[JEE Main 2025 (Online) 8th April Evening Shift]

Scan or tap for the
full solution



ANSWER KEY

Section A (MCQ) — 2 questions

Ques.	1	2									
Ans.	3	4									

Section B (Numerical) — 1 question

Ques.	3										
Ans.	63										