PART 1 - MATHEMATICS

Topic : Statistics

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. Consider a data consisting of 10 observations $x_1, x_2, \ldots, x_{10}$, whose mean is 5 and variance is 7. If the mean and the variance of the first 8 observations $x_1, x_2, \ldots, x_8$ are 4 and 3.5, respectively, and $x_9 < x_{10}$, then the value of $3x_9 + 2x_{10}$ is _____. [JEE Advanced 2026 Paper 2]

Scan or tap for the full solution

Space for Rough Work

SECTION–2 : (Maximum Marks : 4)

- This section contains **ONE** question.
- Each question has **TWO** lists: **List-I** and **List-II**.
- Four options are given representing matching of elements from List-I and List-II. **ONLY ONE** of these four options corresponds to a correct matching.
- For each question, choose the option corresponding to the correct answer.
- Answer to each question will be evaluated according to the following marking scheme :

Full Marks : +4 If ONLY the correct option is chosen;
Zero Marks : 0 If none of the options is chosen (i.e. the question is unanswered);
Negative Marks : −1 In all other cases.

2. Consider the following frequency distribution:

Value	4	5	8	9	6	12	11
Frequency	5	f_1	f_2	2	1	1	3

Suppose that the sum of the frequencies is 19 and the median of this frequency distribution is 6.
For the given frequency distribution, let α denote the mean deviation about the mean, β denote the mean deviation about the median, and σ^2 denote the variance.
Match each entry in **List-I** to the correct entry in **List-II** and choose the correct option.

[JEE Advanced 2025 Paper 1]

	List-I		List-II
P.	$7f_1 + 9f_2$ is equal to	1.	146
Q.	19α is equal to	2.	47
R.	19β is equal to	3.	48
S.	$19\sigma^2$ is equal to	4.	145
		5.	55

(A) (P) → (5), (Q) → (3), (R) → (2), (S) → (4)
(B) (P) → (5), (Q) → (2), (R) → (3), (S) → (1)
(C) (P) → (5), (Q) → (3), (R) → (2), (S) → (1)
(D) (P) → (3), (Q) → (2), (R) → (5), (S) → (4)

Scan or tap for the full solution

Space for Rough Work

JEE ADVANCED STATISTICS — PYQS

Test Pattern : **JEE (Advanced)**

ANSWER KEY

SECTION–1																													
Ques.	1																												
Ans.	**44**																												

SECTION–2																													
Ques.	2																												
Ans.	**C**																												