

JEE MAIN PROBABILITY (CLASS 12) — RANDOM VARIABLES AND PROBABILITY DISTRIBUTIONS — PYQS

Max. Marks: 8
Questions: 2

Section A (MCQ) — 2 questions

Q.1 If a random variable x has the probability distribution

x	0	1	2	3	4	5	6	7
$P(x)$	0	$2k$	k	$3k$	$2k^2$	$2k$	$k^2 + k$	$7k^2$

then $P(3 < x \leq 6)$ is equal to

[JEE Main 2026 (Online) 22nd January Morning Shift]

- (1) 0.34 (2) 0.64 (3) 0.22 (4) 0.33

Scan or tap for the full solution



Q.2 If the probability that the random variable X takes the value x is given by

$P(X = x) = k(x + 1)3^{-x}$, $x = 0, 1, 2, 3, \dots$, where k is a constant, then $P(X \geq 3)$ is equal to

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

- (1) $\frac{1}{9}$ (2) $\frac{8}{27}$ (3) $\frac{7}{27}$ (4) $\frac{4}{9}$

Scan or tap for the full solution



ANSWER KEY

Ques.	1	2											
Ans.	4	1											