AI1103 : Assignment 2

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1 GATE EE 2013 QUESTION No. 61

What is the chance that a leap year,selected at random,will contain 53 Saturdays?
(A) $\frac{2}{7}$ (B) $\frac{3}{7}$ (C) $\frac{1}{7}$ (D) $\frac{5}{7}$

2 SOLUTION

Let X be a random variable
We Define, $X \in 0,1$
$\Pr(X = 0) \longrightarrow$ denotes for 52 Saturdays
$\Pr(X = 1) \longrightarrow$ denotes for 53 Saturdays
$\implies$ Remaining Days = 366 - (52 ×7) = 2
$\implies \Pr(X = 1) = \frac{2}{7}$
∴ The correct answer is **Option A**