NCERT Assignment 2

EE22BTECH11052 - SUJAL GUPTA

A coin is tossed two times. Find the probability of getting at most one head.

Solution: Let the event of getting a head on one coin toss be A. Then

$$P(A) = \frac{1}{2} \tag{1}$$

The possible outcomes if a coin is tossed two times

$$S = \{(HH), (HT), (TH), (TT)\}$$
 (2)

Let E be the event of getting atmost one head.

$$E = \{(HT), (TH), (TT)\}\$$
 (3)

$$n(E) = 3 \tag{4}$$

Hence, the required probability is

$$P(E) = \frac{n(E)}{n(S)}$$

$$= \frac{3}{4}$$
(6)

$$=\frac{3}{4}\tag{6}$$