MARKS

7
(2, 3, 2)

4. The numbers 1, 2, ..., 9 are written on nine cards and placed in a hat; the cards are then drawn one by one by equiprobable selecting ('at random') without replacement. Find the probability of each of the following events:

(a) *A*: "exactly three odd numbers are obtained in the first five draws";

(b) *B*: "exactly five draws are required to get three odd numbers";
i.e., there are two odd numbers in the first four draws, followed by an odd number on the fifth draw;

(c) *C*: "the largest number obtained in the first five draws is 5."

(a)

(*A*) Probability (a)

(b)

(*B*) Probability (b)

(c)

(*C*) Probability (c)