Name: **Rida Fatima** Class: **1-year** Roll No. _____

Subject: **Statistic** Test No. **WT-5** Date: _____

	A B C D		A B C D		A B C D		A B C D	Marks Obtained
1	○ ● ○ ○	6	○ ○ ○ ○	11	○ ○ ○ ○	16	○ ○ ○ ○	
2	○ ○ ● ○	7	○ ○ ○ ○	12	○ ○ ○ ○	17	○ ○ ○ ○	
3	○ ● ○ ○	8	○ ○ ○ ○	13	○ ○ ○ ○	18	○ ○ ○ ○	
4	○ ○ ○ ○	9	○ ○ ○ ○	14	○ ○ ○ ○	19	○ ○ ○ ○	
5	○ ○ ○ ○	10	○ ○ ○ ○	15	○ ○ ○ ○	20	○ ○ ○ ○	

SECTION-1

(i)

SET:

A set is a well defined collection of distinct objects. The objects making up a set are called elements. A set is usually denoted by a capital letter i.e, A,B,C etc.

e.g:- $A = \{1,2,3,4,5\}$ is a set.

(ii)

$= \dfrac{479001600}{3628800}$

$= \boxed{132 \text{ Ans}}$

(iii)

Sample Space $= S = \{HH, HT, TH, TT\}$

A = At least one head. $A = \{HH, HT, TH\}$

$P(A) = \dfrac{n(A)}{n(S)}$

$= \dfrac{3}{4}$

$\boxed{P(A) = 0.75}$

(iv)

Sample space $= S = \{1, 2, 3, 4, 5, 6\}$

A $=$ even number $= \{2, 4, 6\}$

$P(A) = \dfrac{n(A)}{n(S)} = \dfrac{3}{6} = \dfrac{1}{2} = \boxed{0.5 = P(A)}$

SECTION-II

Q3. Sample space $= S = \{(1,1),(1,2),(1,3),(1,4),(1,5),(1,6),(2,1),(2,2),(2,3),$
$(2,4),(2,5),(2,6),(3,1),(3,2),(3,3),(3,4),(3,5),(3,6),(4,1),(4,2),(4,3),(4,4),(4,5),$
$(4,6),(5,1),(5,2),(5,3),(5,4),(5,5),(5,6),(6,1),(6,2),(6,3),(6,4),(6,5),(6,6)\}$

(i) A $=$ sum is $6 = \{(1,5),(2,4),(3,3),(4,2),(5,1)\}$

$P(A) = \dfrac{n(A)}{n(S)} = \boxed{\dfrac{5}{36}}$

(ii) A $=$ sum is 4 or less $= \{(1,1),(1,2),(1,3),(2,1),(2,2),(3,1)\}$

$P(A) = \dfrac{n(A)}{n(S)} = \boxed{\dfrac{6}{36}}$

(iii) A $=$ sum is even no. $= \{(1,1),(1,3),(1,5),(2,2),(2,4),(2,6),(3,1),$
$(3,3),(3,5),(4,2),(4,4),(4,6),(5,1),(5,3),(5,5),(6,2),(6,4),(6,6)\}$

$P(A) = \dfrac{n(A)}{n(S)} = \dfrac{18}{36}$

$\boxed{P(A) = \dfrac{1}{2}}$