***Lab: 07***

***Course Outcome CO3*:**

***Blooms Taxonomy Level****: BT2,BT3*

1. Two tetrahedra with sides numbered 1 to 4 are tossed. Let X denote the number on the downturned face of the first tetrahedron and Y be the larger of the downturned number.
2. Find the joint distributions of and.
3. Find the conditional distribution of given that
4. Find
5. Find (Correlation coefficient)
6. Find
7. Let the joint p.d.f. of X and Y be

Find (a) P [0 < X < 1/2, 0 < Y < 1/4]

(b) E[X], E[Y], E [XY], E[X+Y]

(c )

(d)

1. If the joint *distribution* of X and Y is given by:
2. Find the marginal densities of X and Y.
3. Are X and Y independent?
4. Find
5. Find