**ACM India and RBCDSAI, IIT Madras Joint Summer School on DS/ML/AI for Women | 1**

**Assignment 3: Data distribution and Linear Algebra**

**July 13, 2022**

**Submission URL**

**Submission Deadline: 15/07/2022, 2.30 PM**

**Data Distribution**

**1. Random Numbers**

Write a program that generates a random number, x, between 1 and 50, a random number y between 2 and 5, and computes x \* y

**2. Distribution**

Write your own function for probability mass function and cumulative distribution function for Poisson distribution and plot the PMF and CDF

**Linear Algebra**

3. Write a NumPy program to compute the sum of the diagonal element of a given array (Hint: *numpy.trace*)

*Input: m = np.arange(4).reshape(2,2)*

*Output: 3*

4. Write a for loop to iterate through every element of a given matrix and print them