**AIM :-** TO GENERATE EXPONENTIALLY RANDOM NUMBERS FROM UNIFORMLY DISTRIBUTED NUMBERS

clc;

clear;

uniX = rand(1,10000000);

subplot(3,1,1)

nbin = 5000;

hist(uniX,nbin);

title('uniformly distributed random numbers');

% generation of exp distribution

expY = -log(uniX);

subplot(3,1,2);

hist(expY,nbin);

title('exponentially distributed random numbers');

% generation of uniform from exp

uniX2 = exp(-expY);

subplot(3,1,3)

hist(uniX2,nbin);

title('uniform distribution using exponential');

