Quiz 3 Statistics for Data Science, 4th Semester Course,
RVCE Bangalore Marks 10

1. Statement 1: Independent random variables are ALWAYS uncorrelated.
Statement 2: Uncorrelated random variables are ALWAYS independent.
Choose the correct option:
   (a) Statement 1 is always TRUE
   (b) Statement 2 is always TRUE
   (c) Statement 1 and Statement 2 , both are always TRUE
   (d) Statement 1 is ALWAYS FALSE.

2. In a binomial distribution of sample size 65 and probability of success 0.8, the approximate mean of the distribution would be
   (a) 65
   (b) 52
   (c) 10.5
   (d) 0.8

3. If X and Y are two random variables such that their correlation coefficient $r = 1$, then

   (a) X and Y are independent
   (b) X and Y are linearly correlated
   (c) we cannot comment on X and Y, unless we know the exact data
   (d) it ALWAYS indicates significant error in measurement

4. Equally likely random variable requires that probabilities to be the same across all elements of the sample space.
FALSE / TRUE

5. If A and B are complementary events then
   (a) They have different sample spaces associated
   (b) They are independent
   (c) They are mutually exclusive
   (d) They do not form a partition of sample space.