

Statistics - ICS Part 1 Statistics Chapter 7 Short Questions Preparation

Q1. Can a random variable assume negative value?
Ans 1: Yes a random variable can assume negative values.
Q2. What is the sample space when three distinct coins are tossed simulataneously. Also specify the event A exactly two heads occur.
Ans 1: If H and T stand for head and tail respectively, then the sample space S is.
Ans 2: S={ HHH, HHT, HTH, THH, HTT, THT, TTH, TTT} A = {HHT, HTH, THH} is the required event.
Q3. Define exhaustie or completely exhaustive or collectively exhaustive outcomes.
Ans 1: When a list of outcomes that can result from an expriment includes every possible outcome, the list is said to be completely or collectively exhanustive, in the experiment of tossing a coin, the list head and tail is completely exhaustive.
Q4. State teh classical or a priori definition of probability.
Ans 1: The probability of an event A is the numebr of outcomes favourable to the occurrence of A divided by the totla numebr of possible outcomes.
Q5. State the relative freqeuncy definiation of probability.
Ans 1: An experiment is repeated a times, whene n is very large, If an event A occurs m times, then the probability of occurrence of A is defined as the relative frequencey m/n
Q6. When does prababiliyt becomes negative.
Ans 1: Teh prbability cannnot be negative for ever.
Q7. Find the minimum and maximum sum of dosts when a pair of dice is rolled.
Ans 1: 2 is minimum sum on two dice
Ans 2: 12 is maximum sunm on two dice

- Q8. What is random variable?
 - **Ans 1:** A variable whose value are determined by the outcomes of a random experiment is called random variable.
- Q9. Define Independent evetns.
 - **Ans 1:** The Events a and B are said to independent if the occurrence or nonocurrence of event A does not affect the probability of occurrence of B. This means that irrespective whether event A has occurred or not, the probability of occurrence of B is to going to be same.
- Q10. What is the probability that in selecting two cards one at a time from a deck with replacement, the second card is a face card givne that the first card was red.
 - Ans 1: A red card on the first draw and a face card on the second draw with replacement are independent events.
 - **Ans 2:** P(face card 1 red rard) = P (face card) = 12/52 = 3/13