Extra Questions Probability

1. If an entrance exam is graded based on two exams, the probability of being chosen at random, students clearing the 1st exam is 0.8 and the probability of passing the 2nd exam is 0.7. The probability of clearing at least one of them is 0. 95. Find the probability of clearing both.
2. Two students Anil and Sheena appeared in an exam. The probability that Anil will clear the exam is 0.05 and that Sheena will clear the exam is 0. 10. The probability of both will clear the exam is 0.02. What is the probability that

   (a) Both Anil and Sheena will clear the exam

   (b) At least one of them will not clear the exam

   (c) only one of them will clear the exam

3. One die has two faces each with number 1, three faces each with number 2 and one face with number 3, if the die rolled only once, the find

   (i) P (2)

   (ii) P (1 or 3)

   (iii) P (not 3)

4. A card has been drawn from a well-shuffled deck of 52 cards. What will be the probability that a card will be an

   (i) Diamond

   (ii) Black card

   (iii) Not an ace

   (iv) Not a diamond

5. There are 20 cards that are numbered from 1 to 20. If a card is withdrawn randomly, then find the probability that a number on the card will be:

   (i) Multiple of 4

   (ii) Even number

   (iii) Not divided by 5

(iv) Prime Number

6. What is the probability that in a random arrangement of letters of UNIVERSITY the two I's come together?
7. Hockey match timings are 3 pm to 5 pm. One man arrives late for the match. Find the probability that he misses the only goal of the match that was scored in the 20th minute of the match?
8. E and F are events such that P (E) = 0.42, P (F) = 0.48, and P (E and F) = 0.16. Determine

   (i) P (not E)

   (ii) P (not F)

   (iii) P (E or F)

9. In a town, there are 6000 people of which 1200 are over 50 years old and 2000 are females. It is said that 30% of females are over 50 years. Find the probability that an individual chosen randomly from the town is either female or over 50 years.
10. One coin is tossed thrice. Consider the following event A: all tails appear, B: only one head comes and C: not less than two heads come, do they form a set of mutually exclusive & exhaustive events?