RECAP ACTIVITY –PROBABILITY

NAME:_____   **DATE :_____**

1. In each of the following describe the sample space for the indicated experiment.
   I.   A coin is tossed, and a die is thrown
   II. A coin is tossed, and then a die is rolled only in case a head is shown on the coin
   III. One die of red colour, one of white colour and one of blue colour are placed in a bag. One die is selected at random and rolled, its colour and the number on its uppermost face is noted. Describe the sample space.

2. An experiment consists of tossing a coin and then throwing it the second time if a head occurs. If a tail occurs on the first toss, then a die is rolled once. Find the sample space.

3. The numbers 1, 2, 3 and 4 are written separately on four slips of paper. The slips are put in a box and mixed thoroughly. A person draws two slips from the box, one after the other, without replacement. Describe the sample space for the experiment.

4. A die is rolled. Let E be the event "die shows 4" and F be the event "die shows even number". Are E and F mutually exclusive?

5. An experiment involves rolling a pair of dice and recording the numbers that come up. Describe the following events: A: the sum is greater than 8, B: 2 occurs on either die C: the sum is at least 7 and a multiple of 3. Which pairs of these events are mutually exclusive?

6. Three coins are tossed once. Let A denotes the event 'three heads show", B denotes the event "two heads and one tail show", C denotes the event" three tails show and D denote the event 'a head shows on the first coin". Which events are

(i) Mutually exclusive? (ii) Simple? (iii) Compound?

7. A coin is tossed twice, what is the probability that at least one tail occurs?

8.A die is thrown, find the probability of the following events.

(i) A prime number will appear.

(ii) A number greater than or equal to 3 will appear.

(iii) A number less than or equal to one will appear.

(iv) A number more than 6 will appear.

(v) A number less than 6 will appear.

9. If 2/11 is the probability of an event, what is the probability of the event 'not A'.

10. A letter is chosen at random from the word 'ASSASSINATION'. Find the probability that the letter is (i) a vowel (ii) a consonant

11.In Class XI of a school, 40% of the students study Mathematics, and 30% study Biology. 10% of the class study both Mathematics and Biology. If a student is selected at random from the class, find the probability that he will be studying Mathematics or Biology.

12. In an entrance test that is graded on the basis of two examinations, the probability of a randomly chosen student passing the first examination is 0.8, and the probability of passing the second examination is 0.7. The probability of passing at least one of them is 0.95. What is the probability of passing both?