SATISH CHANDRA MEMORIAL SCHOOL

CLASS TEST CH-7 **FM: 15**

1. A die is rolled thrice, and the number of 6s is recorded. Which of the following lists is a sample space for this experiment? **1**

a) {1, 2, 3} b) {0, 1, 2} c) {0, 1, 2, 3, 4} d) {0, 1, 2, 3}

2. A bag contains 24 marbles, some blue and some green. If the probability of drawing a green marble is 23, then the number of blue marbles is **1**

a) 6 b) 8 c) 12 d) 16

Select the correct answer from the options (a), (b), (c), and (d) given below.

(a) Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of the Assertion (A).

(b) Both Assertion (A) and Reason (R) are true, but Reason (R) is not the correct explanation of the Assertion (A).

(c) Assertion (A) is true, but Reason (R) is false.

(d) Assertion (A) is false, but Reason (R) is true.

3. **Assertion (A):** If a die is thrown, the probability of getting a number less than 7 is 1.

Reason (R): An event which is certain to happen has a probability of 1 and is called a sure event. **1**

4. Ansh has 3 shirts of different colours (yellow, red and blue) and 2 types of pants (jeans and shorts). List all the possible combinations of outfits consisting of one shirt and one pair of pants. Display your answer in a table format. **2**

5. Two fair 6-sided dice are rolled simultaneously. Calculate the probability that: **3**

(i) The sum of the numbers is a multiple of 4.

(ii) The product of the numbers is a perfect square.

6. A bag contains 1 red ball and 1 blue ball. A ball is drawn at random, its colour is noted, and it is put back into the bag. A second ball is then drawn. Draw a tree diagram to show all possible combinations of outcomes. What is the probability of drawing one red and one blue ball? **3**

7. A student chooses a snack combination consisting of one main course and one drink. The main course options are Patties (P), Burger (B), or Sandwich (S). The drink options are Juice (J) or Milk (M).

(i) Draw a tree diagram to show the sample space. **2**

(ii) If the student chooses randomly, what is the probability they do NOT choose a Sandwich? **1**

(iii) What is the probability they choose a Burger and Juice? **1**