**MATHS**

**CLASS X**

**8. Statistics and Probability**

**Multiple choice questions (QR code)**

1. The range of first 10 prime numbers is

   (1) 9             (2) 20           (3) 27           (4) 5

2. If the smallest value and co-efficient of range of a data are 25 and 0.5 respectively. Then the largest value is

   (1) 25           (2) 75           (3) 100          (4) 12.5

3. If the observations 1, 2, 3, ... 50 have the variance $V_1$ and the observations 51, 52, 53, . . .100 have the variance $V_2$ then $\dfrac{V_1}{V_2}$ is

   (1) 2             (2) 1            (3) $\dfrac{1}{2}$         (4) 0

4. If the standard deviation of a variable $x$ is 4 and if $y = \dfrac{3x+5}{4}$ , then the standard deviation of $y$ is

   (1) 4             (2) 3.5          (3) 3           (4) 2.5

5. If the data is multiplied by 4, then the corresponding variance is get multiplied by

(1) 4           (2) 16          (3) 2          (4) None

6. If the co-efficient of variation and standard deviation of a data are 35% and 7.7 respectively then the mean is
   (1) 20        (2) 30        (3) 25        (4) 22

7. The batsman $A$ is more consistent than batsman $B$ if

   (1) C.V of $A$ > C.V of $B$                (2) C.V of $A$ < C.V of $B$

   (3) C.V of $A$ = C.V of $B$                (4) C.V of $A$ ≥ C.V of $B$

8. If an event occurs surely, then its probability is

   (1) 1         (2) 0         (3) $\dfrac{1}{2}$         (4) $\dfrac{3}{4}$

9. A letter is selected at random from the word 'PROBABILITY'. The probability that it is not a vowel is

   (1) $\dfrac{4}{11}$        (2) $\dfrac{7}{11}$        (3) $\dfrac{3}{11}$        (4) $\dfrac{6}{11}$

10. In a competition containing two events $A$ and $B$, the probability of winning the events $A$ and $B$ are $\dfrac{1}{3}$ and $\dfrac{1}{4}$ respectively and the probability of winning both the events is $\dfrac{1}{12}$ . The probability of winning only one event is

    (1) $\dfrac{1}{12}$        (2) $\dfrac{5}{12}$        (3) $\dfrac{1}{12}$        (4) $\dfrac{7}{12}$

11. A number $x$ is chosen at random from −4, −3, −2, −1, 0, 1, 2, 3, 4. The probability that $|x| \leq 3$ is

    (1) $\dfrac{3}{9}$        (2) $\dfrac{4}{9}$        (3) $\dfrac{2}{9}$        (4) $\dfrac{7}{9}$

12. If the probability of non-happening of an event is $q$, then the probability of happening of the event is

    (1) $1-q$       (2) $q$       (3) $\dfrac{q}{2}$       (4) $2q$

13. In one thousand lottery tickets, there are 50 prizes to be given. The probability of Mani winning a prize who bought one ticket is

    (1) $\dfrac{1}{50}$       (2) $\dfrac{1}{100}$       (3) $\dfrac{1}{1000}$       (4) $\dfrac{1}{20}$

14. When three coins are tossed, the probability of getting the same face on all the three coins is

    (1) $\dfrac{1}{8}$       (2) $\dfrac{1}{4}$       (3) $\dfrac{3}{8}$       (4) $\dfrac{1}{3}$

15. A box contains some milk chocolates and some coco chocolates and there are 60 chocolates in the box. If the probability of taking a milk chocolate is $\dfrac{2}{3}$ then the number of coco chocolates is

    (1) 40       (2) 50       (3) 20       (4) 30