## $\mathbf{A n a n d} \mathbf{N i k e t a n}^{\text {ik }}$

Maninagar Campus

| Grade : X | Subject : Mathematics | Date : 03/07/2019 |
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| Name : | MULTIPLE CHOICE | Chapter No. 1, 2,10,15 |

1. The probability of a leap year selected at random contain 53 Sunday is:
(a) $53 / 366$
(b) $1 / 7$
(c) $2 / 7$
(d) $53 / 365$
2. A letter is chosen at random from the letters of the word ASSASSINATION. The probability that the letter chosen has:
(a) $6 / 13$
(b) $7 / 13$
(c) 1
(d) none of these
3. If three coins are tossed simultaneously, than the probability of getting at least two heads, is
(a) $1 / 4$
(b) $3 / 8$
(c) $1 / 2$
(d) $1 / 8$
4. The following probabilities are given; choose the correct answer for that which is not possible.
(a) 0.15
(b) $2 / 7$
(c) $7 / 5$
(d) none of these.
5. The sum of the probability of an event and non event is :
(a) 2
(b) 1
(c) 0
(d) none of these
6. The probability that a prime number selected at random from the numbers $(1,2,3, \ldots . . . . . .35)$ is :
(a) $12 / 35$
(b) $11 / 35$
(c) $13 / 35$
(d) none of these
7. What are the total outcomes when we throw three coins?
(a) 4
(b) 5
(c) 8
(d) 7
8. What is the probability that a number selected from the numbers $(1,2,3, \ldots \ldots . . . ., 15)$ is a multiple of 4 ?
(a) $1 / 5$
(b) $4 / 5$
(c) $2 / 15$
(d) $1 / 3$
9. The probability that it will rain tomorrow is 0.85 . What is the probability that it will not rain tomorrow
(a) 0.25
(b) 0.145
(c) $3 / 20$
(d) none of these
10. A bag contains 3 red and 2 blue marbles. A marble is drawn at random. The probability of drawing a black ball is :
(a) $3 / 5$
(b) $2 / 5$
(c) $0 / 5$
(d) $1 / 5$
11. For any positive integer a and 3 , there exist unique integers $q$ and $r$ such that $a=3 q+r$, where $r$ must satisfy :
(a) $0 \leq r<3$
(b) $1<r<3$
(c) $0<\mathrm{r}<3$
(d) $0<\mathrm{r} \leq 3$
12. L.C.M. of $23 \times 32$ and $22 \times 33$ is :
(a) 23
(b) 33
(c) $23 \times 33$
(d) $22 \times 32$
13. If the HCF of 65 and 117 is expressible in the form $65 \mathrm{~m}-117$, then the value of m is
(a) 4
(b) 2
(c) 1
(d) 3
14. A forester wants to plant 66 apple trees, 88 banana trees and 110 mango trees in equal rows (in terms of number of trees). Also he wants to make distinct rows of trees (i.e., only one type of trees in one row). The number of minimum rows required are
(a) 2
(b) 3
(c) 10
(d) 12
15. 4 Bells toll together at 9.00 am . They toll after 7, 8,11 and 12 seconds respectively. How many times will they toll together again in the next 3 hours?
(a) 3
(b) 4
(c) 5
(d) 6
16. Two natural numbers whose sum is 85 and the least common multiple is 102 are:
(a) 30 and 55
(b) 17 and 68
(c) 35 and 55
(d) 51 and 34
17. If $A=2 n+13, B=n+7$, where $n$ is a natural number then $H C F$ of $A$ and $B$ is:
(a) 2
(b) 1
(c) 3
(d) 4
18. What is the greatest possible speed at which a man can walk 52 km and 91 km in an exact number of minutes?
(a) $17 \mathrm{~m} / \mathrm{min}$
(b) $7 \mathrm{~m} / \mathrm{min}$
(c) $13 \mathrm{~m} / \mathrm{min}$
(d) $26 \mathrm{~m} / \mathrm{min}$
19. What will be the least possible number of the planks, if three pieces of timber $42 \mathrm{~m}, 49 \mathrm{~m}$ and 63 m long have to be divided into planks of the same length?
(a) 5
(b) 6
(c) 7
(d) none of these
20. The HCF and LCM of two numbers are 33 and 264 respectively. When the first number is completely divided by 2 the quotient is 33 . The other number is:
(a) 66
(b) 130
(c) 132
(d) 196
21. If graph of a polynomial does not intersects the $x$-axis but intersects $y$-axis in one point, then no, of zeroes of the polynomial is equal to
(a) 0
(b) 1
(c) 0 or 1
(d) none of these
22. Zeroes of a polynomial can be determined graphically. No. of zeroes of a polynomial is equal to no. of points where the graph of polynomial
(a) intersects y-axis
(b) intersects x -axis
(c) intersects $y$-axis or intersects $x$-axis
23. Graph of a quadratic polynomial is a
(a) straight line
(b) circle
(c) parabola
(d) ellipse
24. The number of zeroes that polynomial $f(x)=(x-2) 2+4$ can have is:
(a) 1
(b) 2
(c) 0
(d) 3
25. If $(x+1)$ is a factor of $2 x 3+a x 2+2 b x+1$, then find the values of $a$ and $b$ given that $2 a-3 b=4$
(a) $\mathrm{a}=-1, \mathrm{~b}=-2$
(b) $a=2, b=5$
(c) $a=5, b=2$
(d) $\mathrm{a}=2, \mathrm{~b}=0$
26. The quadratic polynomial whose sum of zeroes is 3 and product of zeroes is -2 is :
(a) $\mathrm{x} 2+3 \mathrm{x}-2$
(b) $x 2-2 x+3$
(c) $\mathrm{x} 2-3 \mathrm{x}+2$
(d) $\mathrm{x} 2-3 \mathrm{x}-2$
27. If $p(x)$ is a polynomial of at least degree one and $p(k)=0$, then $k$ is known as
(a) value of $\mathrm{p}(\mathrm{x})$
(b) zero of $\mathrm{p}(\mathrm{x})$
(c) constant term of $\mathrm{p}(\mathrm{x})$
(d) none of these
28. A polynomial of degree $n$ has
(a) only 1 zero
(b) exactly n zeroes
(c) atmost $n$ zeroes
(d) more than n zeroes
29. A quadratic polynomial whose one zero is 6 and sum of the zeroes is 0 , is
(a) $x 2-6 x+2$
(b) $\mathrm{x} 2-36$
(c) $\mathrm{x} 2-6$
(d) $\mathrm{x} 2-3$
30. If $p(x)=a x 2+b x+c$, then is equal to
(a) 0
(b) 1
(c) product of zeroes
(d) sum of zeroes
31. Consider PT is a tangent to a circle whose centre is O . If $\mathrm{PT}=12 \mathrm{~cm}$ and $\mathrm{PO}=13 \mathrm{~cm}$ then find teh radius of the circle.
(a) 5 cm
(b) 4 cm
(c) 6 cm
(d) 4.5 cm
32. In the figure, Ab is a chord of length 16 cm , of a circle of radius 10 cm . The tangents at A and B intersect at a point P . Find the length of PA.

(a) 5 cm
(b) 4 cm
(c) 6 cm
(d) 4.5 cm
