

Mathematics Question Bank (Class-10th)

Year 2016-2024

Chapter -1 (Real Number)

3 marks questions 2016

1. Find the LCM and HCF of the following integers by applying the prime factorisation method.

12, 15 and 21

2. Find the LCM and HCF of the following integers by applying the prime factorisation method.

6,72,120

3. Find the LCM and HCF of the following integers by applying the prime factorisation method.

8,9,25

3 marks questions 2017

1. Given that $\text{HCF}(306, 657) = 9$, find $\text{LCM}(306, 657)$.

2. Show that $5 - \sqrt{3}$ is irrational.

3. Prove that $3 + 2\sqrt{5}$ is irrational.

4. Show that $6 + \sqrt{2}$ is irrational.

5. Find the LCM and HCF of the following integers by applying the prime factorisation method.

17, 23 and 29

3 marks questions 2018

1. Express each number as product of its prime factors:

156

2. Find the LCM and HCF of the following pairs of integers and verify that $\text{LCM} \times \text{HCF} = \text{Product of the two numbers}$.

26 and 91

3. Find the LCM and HCF of the following integers by applying the prime factorisation method.

12, 15 and 21

8, 9 and 25

4. Show that $3 + \sqrt{5}$ is irrational.

5. Given that $\text{HCF}(306, 657) = 9$, find $\text{LCM}(306, 657)$.

1 marks question 2019

1. Find the LCM of two integers 26 and 91 is:

(a) 13 (b) 182 (c) 26

2. HCF of 17, 23 and 21 is:

(a) 17 (b) 21 (c) 1

3 marks questions 2019 chapter-1

1. Express each number as product of its prime factors:

(i) 140

(ii) 156

(iii) 7429

2. Find the LCM and HCF of the following integers by applying the prime factorization method.

(i) 17, 23 and 29

3. Given that $\text{HCF}(306, 657) = 9$, find $\text{LCM}(306, 657)$.

4. Prove that $\sqrt{5}$ is irrational.

5. Prove that $7\sqrt{5}$ is irrational.

1 marks questions 2020 chapter -1

1. The prime factors of 140 is:

(a) $5^2 \times 2 \times 7$ (b) $5 \times 2 \times 7^2$ (c) $5 \times 2^2 \times 7$

2. HCF of 2, 3 and 4 is:

(a) 2 (b) 3 (c) 1

3. For any two positive integers a and b ,

$\text{HCF}(a, b) = \dots\dots\dots$

(a) $\frac{a \times b}{\text{LCM}(a, b)}$ (b) $\frac{a + b}{\text{LCM}(a, b)}$ (c) $\frac{a - b}{\text{LCM}(a, b)}$

marks question 2020 chapter-1

1. Prove that $\sqrt{3}$ is irrational.

2. Find the LCM and HCF of the following integers by applying the prime factorization method.

17, 23 and 29

3. Prove that the $6 + \sqrt{2}$ are irrational.

4. Prove that the $\sqrt{2}$ are irrational

5. Find the LCM and HCF of the following integers by applying the prime factorization method

8, 9 and 25

1 marks questions 2021 chapter -1

1. Find the LCM of two integers 26 and 91 is:

(a) 13 (b) 182 (c) 26

2. HCF of 17 and 23 is

(a) 17 (b) 23 (c) 1

3. HCF of 6 and 20 is:

(a) 3 (b) 6 (c) 2 (d) 20

4. LCM of 510 and 92 will be:

(a) 2 (b) 92 (c) 23460

5. 1. The prime factors of 140 is:

(a) $5^2 \times 2 \times 7$ (b) $5 \times 2 \times 7^2$ (c) $5 \times 2^2 \times 7$

6. . HCF of 12 and 15 is:

(a) 3 (b) 5 (c) 7

3 marks questions 2021 chapter-1

1. 5.. Find the LCM and HCF of the following integers by applying the prime factorization method

8, 9 and 25

2. 2. Find the LCM and HCF of the following integers by applying the prime factorization method.

(i) 17, 23 and 29

3. Show that $3 + 2\sqrt{5}$ is irrational

4. 3. Prove that the $6 + \sqrt{2}$ are irrational.

5. Given that $\text{HCF}(306, 657) = 9$, find $\text{LCM}(306, 657)$.

1 marks questions chapter-1 2022

1.. HCF of 8 and 9 is:

(a) 3 (b) 1 (c) 2

2. The prime factors of 140 is:

(a) $5^2 \times 2 \times 7$ (b) $5 \times 2 \times 7^2$ (c) $5 \times 2^2 \times 7$

3. 3. HCF of 6 and 20 is:

(a) 3 (b) 6 (c) 20

3 marks questions chapter-1 2022

1. Given that $\text{HCF}(306, 657) = 9$, find $\text{LCM}(306, 657)$.
2. Show that $3 + 2\sqrt{5}$ is irrational
3. Prove that the $6 + \sqrt{2}$ are irrational.

1 marks question chapter-1 2023

1. HCF of 2,3 and 4 is:

(a) 2 (b) 3 (c) 1

2. The prime factors of 140 is:

(a) $5^2 \times 2 \times 7$ (b) $5 \times 2 \times 7^2$ (c) $5 \times 2^2 \times 7$

3 marks questions chapter-1 2023

1. Given that $\text{HCF}(306, 657) = 9$, find $\text{LCM}(306, 657)$.
2. Show that $3 + 2\sqrt{5}$ is irrational

3 marks question chapter-2 2018

1. Find the zeroes of the following quadratic polynomials and verify the relationship between the zeroes and the coefficients.

(i) $x^2 - 2x - 8$

1 marks question 2019 chapter - 2

1. In the pair of linear Equations $a_1/a_2 = b_1/b_2 \neq c_1/c_2$ the system will have

(a) only one solution (b) many solution (c) none

2. Given that one of the zeroes of the cubic polynomial $ax^3 + bx^2 + cx + d$ is zero, the product of the other two zeroes is

(a) $-\frac{c}{a}$ (b) $\frac{c}{a}$ (c) 0 (d) $-\frac{b}{a}$

3. The zeroes of $x^2 - 2x - 8$ are:

(a) (2,-4) (b) (4,-2) (c) (-2,-2) (d) (-4,-4)

4. zeroes of quadratic polynomial $x^2 - 3$ will be

a) $\sqrt{3}, \sqrt{3}$ (b) $-\sqrt{3}, \sqrt{3}$ (c) -3,3

5. Number of zeroes of quadratic polynomial is:

- (a) 4 (b) 2 (c) 3

3 marks questions 2019 chapter-2

1. 2. Find a quadratic polynomial, each with the given numbers as the sum and product of its zeroes, respectively.

- (i) 0, $\sqrt{5}$

2. Find a quadratic polynomial, each with the given numbers as the sum and product of its zeroes, respectively

- (ii) 4, 1

1 marks questions 2020 chapter-2

1. Number of zeroes of quadratic polynomial is:

- (a) 4 (b) 2 (c) 3

2. In the quadratic equation $ax^2+bx+c=0$. the sum of root will be

- (a) $-\frac{c}{a}$ (b) $\frac{c}{a}$ (c) 0 (d) $-\frac{b}{a}$

3. A pair of linear equations $a_1x+ b_1y+ c_1=0$, $a_2x+ b_2y+ c_2=0$ has exactly one solution if:

- (a) $a_1/a_2 = b_1/b_2 \neq c_1/c_2$ (b) $a_1/a_2 = b_1/b_2 = c_1/c_2$ (c) $a_1/a_2 \neq b_1/b_2$

3 marks questions chapter-2 2020

Find the zeroes of the following quadratic polynomials and verify the relationship between the zeroes and their coefficients:

- (ii) $4s^2 - 4s + 1$

1 marks questions chapter-2 2021

1. zeroes of polynomial $t^2 - 15$ are:

- $\sqrt{15}, \sqrt{15}$ (b) $-\sqrt{15}, \sqrt{15}$ (c) $-15, 15$

2. In the polynomial $p(x)= 6x^2 - 3 - 7x$ the number of zeroes is

- (a) 0 (b) 2 (c) -1

3. In the quadratic polynomial $x^2 - 2x - 8$, sum of zeroes is

- (a) 8 (b) 2 (c) -2

4. quadratic polynomial $x^2 - 4$, zeroes are:

- (a) $+2, -2$ (b) $4, -4$ (c) $-\sqrt{2}, \sqrt{2}$

5. quadratic polynomial $x^2 - 5$, zeroes are:

- (a) $+5, -5$ (b) $5, -5$ (c) $-\sqrt{5}, \sqrt{5}$

6. A pair linear equations ,if $a_1/a_2 = b_1/b_2 \neq c_1/c_2$ then solution will be:

(a) only one (b) infinite many (c) no solution

3 marks questions chapter -2 2021

1. Find a quadratic polynomial each with the given numbers as the sum and product of zeroes $\sqrt{2}$ and $\frac{1}{3}$ respectively:

2. . Find a quadratic polynomial, each with the given numbers as the sum and product of its zeroes, 0, $\sqrt{5}$ respectively.

3. Find a quadratic polynomial each with the given numbers as the sum and product of zeroes 1 and 1 respectively:

1 marks questions chapter -2 2022

1. A pair of linear equations, if $a_1/a_2 \neq b_1/b_2$ then solution will be:

(a) only one (b) infinite many (c) no solution

2. In the quadratic equation $ax^2+bx+c=0$. the sum of zeroes is

(a) $-\frac{c}{a}$ (b) $\frac{c}{a}$ (c) 0 (d) $-\frac{b}{a}$

3 marks questions chapter-2 2022

1. 1. Find the zeroes of the following quadratic polynomials and verify the relationship between the zeroes and the coefficients.

(i) $3x^2-x-4$ (ii) $6x^2-3-7x$

2. Find a quadratic polynomial, each with the given numbers as the sum and product of its zeroes, respectively.

$\frac{1}{4}$, $-\frac{1}{4}$

1 marks question chapter -2 2023

1. Number of zeroes of quadratic polynomial is:

(a) 4 (b) 2 (c) 3

3 marks questions chapter -2 2023

1. Find the zeroes of the following quadratic polynomials and verify the relationship between the zeroes and their coefficients:

(ii) $4s^2 - 4s + 1$

2. Find the zeroes of the following quadratic polynomials and verify the relationship between the zeroes and their coefficients: $4u^2 + 8u$

3. Find the zeroes of the following quadratic polynomials and verify the relationship between the zeroes and their coefficients: $t^2 - 15$

1 marks questions chapter- 2 2024

1. Number of zeroes of quadratic polynomial is:

(a) 4 (b) 2 (c) 3

3 marks questions chapter-2 2024

1. Find the zeroes of the following quadratic polynomials and verify the relationship between the zeroes and the coefficients.

$$6x^2 - 3 - 7x$$

CHAPTER-3

3 marks questions 2016 chapter -3

1. Solve the following pair of linear equations by the elimination method

$$x + y = 5 \text{ and } 2x + 3y = 4$$

2. solve the pair of linear equations graphically

$$x - y + 1 = 0, \quad 3x + 2y - 12 = 0$$

3. Solve the following pair of linear equations by the substitution method.

$$7x - 15y = 2$$

$$x + 2y = 3$$

4. solve the pair of linear equations graphically

$$2x + y - 6 = 0, \quad 4x - 2y - 4 = 0$$

5. solve the pair of linear equations graphically

$$x + 2y = 5, \quad 2x - 3y = 12$$

6. solve the pair of linear equations graphically

$$x - y + 1 = 0, \quad 3x + 2y - 12 = 0$$

The difference between two numbers is 26, and one number is three times the other. Find them. (5-mark)

3 marks questions 2017 chapter - 3

1. Solve the following pair of linear equations by the elimination method

$$3x - 5y = 10 \text{ and } 2x - 2y = 2$$

2. Which of the following pairs of linear equations are consistent/inconsistent? If consistent, obtain the solution graphically: $2x + y - 6 = 0$, $4x - 2y - 4 = 0$

3. Solve the following pair of linear equations by the substitution method.

$$0.2x + 0.3y = 1.3$$

$$0.4x + 0.5y = 2.3$$

4. $x + 3y = 6$, and $2x - 3y = 12$ is consistent, if so, solve them graphically

3 marks question 2018 chapter - 3

1. solve the pair of linear equations by substitution method

$$x + y = 14$$

$$x - y = 4$$

2. solve the pair of linear equations

$$(ii) s - t = 3$$

$$(s/3) + (t/2) = 6$$

3. solve the pair of linear equations graphically

$$2x + y - 6 = 0, 4x - 2y - 4 = 0$$

4. solve the pair of linear equations graphically

$$x - y + 1 = 0, 3x + 2y - 12 = 0$$

5. Solve the following pair of linear equations by the elimination method

$$3x - 5y - 4 = 0 \text{ and } 9x = 2y + 7$$

3 marks questions chapter-3 2019

1. solve the pair of linear equations graphically

$$2x + y - 6 = 0, 4x - 2y - 4 = 0$$

2. solve the pair of linear equations graphically

$$x - y + 1 = 0, 3x + 2y - 12 = 0$$

3. solve the pair of linear equations

(ii) $s - t = 3$

$(s/3) + (t/2) = 6$

Solve the following pair of linear equations by the elimination method

$3x - 5y - 4 = 0$ and $9x = 2y + 7$

.Solve the following pair of linear equations by the elimination method

$x + y = 5$ and $2x - 3y = 4$

5 marks questions

(i) If we add 1 to the numerator and subtract 1 from the denominator, a fraction reduces to 1. It becomes if we only add 1 to the denominator. What is the fraction?

A fraction becomes $9/11$ if 2 is added to both the numerator and the denominator. If 3 is added to both the numerator and the denominator, it becomes $5/6$. Find the fraction.

.Solve the following pair of linear equations by the elimination method

$x + y = 5$ and $2x - 3y = 4$

3 marks questions chapter--3 2020

solve the pair of linear equations graphically

$2x + y - 6 = 0$, $4x - 2y - 4 = 0$

solve the pair of linear equations graphically

$x + 3y = 6$, $2x - 3y = 12$

.Solve the following pair of linear equations by the elimination method

$x + y = 5$ and $2x - 3y = 4$

2.Solve the following pair of linear equations by the elimination method

$x + y = 5$ and $2x - 3y = 4$

3 marks question chapter-3 2021

1.solve the pair of linear equations by substitution method

$x + y = 14$, $x - y = 4$

.Solve the following pair of linear equations by the elimination method

$$x + y = 5 \text{ and } 2x - 3y = 4$$

solve the pair of linear equations by substitution method

$$(ii) s - t = 3, (s/3) + (t/2) = 6$$

5 marks question chapter-2 2021

1. Five years ago, Nuri was thrice as old as Sonu. Ten years later, Nuri will be twice as old as Sonu. How old are Nuri and Sonu ?

The difference between two numbers is 26, and one number is three times the other. Find them.

The larger of two supplementary angles exceeds, the smaller by 18 degrees. Find them.

5 marks question chapter-3 2022

A fraction becomes $\frac{9}{11}$ if 2 is added to both the numerator and the denominator. If 3 is added to both the numerator and the denominator, it becomes $\frac{5}{6}$. Find the fraction.

5 marks questions chapter-3 2023

The larger of two supplementary angles exceeds, the smaller by 18 degrees. Find them.

3 MARKS QUESTION CHAPTER-3 2024

Solve the following pair of linear equations by the substitution method

$$3X + 4Y = 10, 2X - 2Y = 2$$

Solve the following pair of linear equations by the elimination method

$$3x - 5y - 4 = 0 \text{ and } 9x = 2y + 7$$

Solve the following pair of linear equations by the elimination method

$$3x + 4y = 10 \text{ and } 2x - 2y = 2$$

CHAPTER -4 (QUARDATIC EQUATIONS) PYQ

3 MARKS QUESTIONS CHAPTER-4 2016

1. Find the roots of the following quadratic equations by factorisation:

$$(i) x^2 - 3x - 10 = 0$$

$$(ii) 2x^2 + x - 6 = 0$$

$$(iii) 100x^2 - 20x + 1 = 0$$

5 MARKS QUESTIONS CHAPTER-4 2016

1. The altitude of a right triangle is 7 cm less than its base. If the hypotenuse is 13 cm, find the other two sides.

3 MARKS QUESTIONS CHAPTER-4 2017

1. find the roots of $3x^2 - 2\sqrt{6}x + 2 = 0$ by factorisation method.

2. Find the roots of the following quadratic equations by factorisation: $\sqrt{2}x^2 + 7x + 5\sqrt{2} = 0$

3. Find the roots of the following quadratic equations by factorisation: $2x^2 - 5x + 3 = 0$

5 MARKS QUESTIONS CHAPTER-4 2017

1. The sum of the reciprocals of Rehman's ages (in years) 3 years ago and 5 years from now is $\frac{1}{3}$. Find his present age.

2. A train travels a distance of 480 km at a uniform speed. If the speed had been 8 km/h less, then it would have taken. find the speed of train

3 MARKS QUESTIONS CHAPTER-4 2018

Find the roots of the following quadratic equations by factorization: $100x^2 - 20x + 1 = 0$

Find the roots of the following quadratic equations by factorization $6x^2 - x - 2 = 0$

1 MARKS QUESTION CHAPTER-4 2019

1. Discriminant of quadratic polynomial $2x^2 - 3x + 5 = 0$

(a) 31 (b) -31 (c) 36

2. Discriminant of quadratic polynomial $x^2 + 4x + 1 = 0$

a) 12 (b) -12 (c) 16

3. Discriminant of quadratic polynomial $2x^2 - 6x + 5 = 0$

(a) 12 (b) 15 (c) 04

3 marks questions chapter-4 2019

. Find the values of k for each of the following quadratic equations so that they have two equal roots.

$$2x^2 + kx + 3 = 0$$

5 marks questions chapter-4 2019

Find two numbers whose sum is 27 and product is 182.

. Find two consecutive positive integers, sum of whose squares is 365.

Find the roots of the following quadratic equations by factorization:

(i) $x^2 - 3x - 10$

1 MARKS QUESTION CHAPTER-4 2020

1. The quadratic equation $ax^2 + bx + c = 0$ has two equal roots if

(a) $b^2 - 4ac > 0$ (b) $b^2 - 4ac = 0$ (c) $b^2 - 4ac < 0$

2. In the quadratic equation $ax^2 + bx + c = 0$, if $b^2 - 4ac > 0$ then the roots of the equation will be:

(a) two equal roots (b) no real roots (c) two distinct real roots

Discriminant of quadratic polynomial $x^2 - 4x + 3 = 0$

(a) 8 (b) -8 (c) 18

1 MARKS QUESTION CHAPTER-4 2021

Discriminant of quadratic polynomial $x^2 - 6x + 5 = 0$

(a) 12 (b) 15 (c) 04

Discriminant of quadratic polynomial $x^2 + 4x + 1 = 0$

a) 12 (b) -12 (c) 16

1. The quadratic equation $ax^2 + bx + c = 0$ has two equal roots if

(a) $b^2 - 4ac > 0$ (b) $b^2 - 4ac = 0$ (c) $b^2 - 4ac < 0$

3 MARKS QUESTION CHAPTER-4 2021

Find the roots of the following quadratic equations by factorisation:

(i) $x^2 - 3x - 10 = 0$

5 MARKS QUESTION CHAPTER-4 2021

The altitude of a right triangle is 7 cm less than its base. If the hypotenuse is 13 cm, find the other two sides.

1 MARKS QUESTION CHAPTER-4 2022

1. Discriminant of quadratic polynomial $x^2 - 2x + \frac{1}{3} = 0$ will be

a) 0 (b) 1 (c) 2

2. In the quadratic equation product of roots is

- (a) $-5/-7$ (b) $5/1$ (c) $+7$

3 MARKS QUESTION CHAPTER-4 2022

Find the roots of the following quadratic equations by

Find factorization $2x^2 + x - 6 = 0$

Find the values of k for each of the following quadratic equations so that they have two equal roots.

$$2x^2 + kx + 3 = 0$$

5 marks questions chapter-4 2022

The altitude of a right triangle is 7 cm less than its base. If the hypotenuse is 13 cm, find the other two sides.
Type equation here.

. two consecutive positive integers, sum of whose squares is 365

Find the sum of first 22 terms of an AP in which $d = 7$ and 22nd term is 149.

1 marks question chapter-4 2023

fill in the blank, $x = \frac{-b \pm \sqrt{\dots\dots\dots}}{2a}$

- (a) b^2 (b) b^2-4ac (c) b^2-ac

$(x + 1)^2 = 2(x - 3)$ is a

- (a) quadratic (b) linear (c) cubic

5 marks questions 2023

Find two numbers whose sum is 27 and product is 182.

The altitude of a right triangle is 7 cm less than its base. If the hypotenuse is 13 cm, find the other two sides.

1 marks question chapter-4 2024

1. Discriminant of quadratic polynomial $2x^2 - 4x + 3 = 0$

- (a) 8 (b) -8 (c) 18

2. the quadratic equations $ax^2 + bx + c = 0$ has two equal root if

(a) $b^2 - 4ac > 0$ (b) $b^2 - 4ac = 0$ (c) $b^2 - 4ac < 0$

5 marks question chapter-4 2024

. two consecutive positive integers, sum of whose squares is 365

CHAPTER-5 (ARITHMETIC PROGRESSIONS) PYQ

3 MARKS QUESTIONS CHAPTER-5 2016

1. An A.P. consists of 50 terms of which 3rd term is 12 and the last term is 106. Find the 29th term.
2. Find the 31st term of an A.P. whose 11th term is 38 and the 16th term is 73
3. If 17th term of an A.P. exceeds its 10th term by 7. Find the common difference

3 MARKS QUESTIONS CHAPTER-5 2017

- 1.. If 17th term of an A.P. exceeds its 10th term by 7. Find the common difference
- 2.The first term of an AP is 5, the last term is 45 and sum is 400. find the number of term and common difference.
3. An A.P. consists of 50 terms of which 3rd term is 12 and the last term is 106. Find the 29th term.

3 MARKS QUESTIONS CHAPTER-5 2018

How many multiples of 4 lie between 10 and 250?

How many three digit numbers are divisible by 7

1 MARKS QUESTIONS CHAPTER-5 2019

1.AP.-5,-1,3,7,.....has common difference

(a) -5 (b) -1 (c) 4

2.The common difference(d) of an AP is 2 ,4 ,6, 8..... is

(a) 2 (b) -2 (c) 4 .

3.The common difference(d) of an AP is 3 ,1 ,-1, -3..... is

(a) 3 (b) -2 (c) 2

3 MARKS QUESTIONS CHAPTER-5 2019

Find the sum of the first 40 positive integers divisible by 6.

Find the sum of first 15 multiples of 8.

Find the sum of the odd numbers between 0 and 50

Find the 31st term of an A.P. whose 11th term is 38 and the 16th term is 73

1 MARKS QUESTIONS CHAPTER-5 2020

30th term of the A.P: 10,7, 4, ..., is

- (a) 97 (b) -77 (c) 77

2. In an AP $a=5$, $d=3$, $a_n=50$ then $n=.....$

- (a) 26 (b) -16 (c) 16

3 MARKS QUESTIONS CHAPTER-5 2020

The sum of 4th and 8th terms of an A.P. is 24 and the sum of the 6th and 10th terms is 44. Find the first three terms of the A.P.

An A.P. consists of 50 terms of which 3rd term is 12 and the last term is 106. Find the 29th term.

Determine the A.P. whose third term is 16 and the 7th term exceeds the 5th term by 12.

The sum of 4th and 8th terms of an A.P. is 24 and the sum of the 6th and 10th terms is 44. Find the first three terms of the A.P.

In an AP

(i) Given $a = 5$, $d = 3$, $a_n = 50$, find n and S_n .

Find the sum of the first 51 terms of an AP whose second and third terms are 14 and 18, respectively.

1 MARKS QUESTIONS CHAPTER-5 2021

1. AP. 0, -4, -8, -12, next term will be

- (a) 16 (b) -16 (c) 20

2. The 5th term of AP : $2, \frac{5}{2}, 3, \frac{7}{2}, \dots$ IS :

- (a) $\frac{5}{4}$ (b) $\frac{5}{3}$ (c) 4

3. 11th TERM OF AN AP $-3, -\frac{1}{2}, 2, \dots$ is

- (a) 28 (b) 22 (c) $-48\frac{1}{2}$

3 MARKS QUESTIONS CHAPTER-5 2021

If the 3rd and the 9th terms of an A.P. are 4 and - 8, respectively. Which term of this A.P. is zero?

If 17th term of an A.P. exceeds its 10th term by 7. Find the common difference

If the 3rd and the 9th term of an AP are 4 and -8 respectively, which term of this AP is zero?

1 MARKS QUESTIONS CHAPTER-5 2022

1. In an AP first term a and common difference d the n^{th} term is

- (a) $a+nd$ (b) $a+(n+1)d$ (c) $a+(n-1)d$

2. In an AP, if each term is multiplied by constant k , then the new sequence will be:

- (a) not AP (b) AP (C) none of these

3 MARKS QUESTIONS CHAPTER-5 2022

Two APs have the same common difference. The difference between their 100th term is 100, what is the difference between their 1000th terms

For what value of n , are the n^{th} terms of two APs 63, 65, 67, and 3, 10, 17, ... equal?

Find the sum of the first 51 terms of an AP whose second and third terms are 14 and 18, respectively.

1 MARKS QUESTIONS CHAPTER-5 2023

1 Which of the following not an AP

- (a) 2,4,6,8,10..... (b) 1,3,9,27..... (c) 3,1,-3,-1

2. The next term of the AP. -1.2,-3.2,-5.2,-7.2

- (a) 8.2 (b) -8.2 (c) -9.2

3 MARKS QUESTIONS CHAPTER-5 2023

An A.P. consists of 50 terms of which 3rd term is 12 and the last term is 106. Find the 29th term.

Two APs have the same common difference. The difference between their 100th term is 100, what is the difference between their 1000th terms

CHAPTER -6 (TRIANGLES) PYQ

5 MARKS QUESTION CHAPTER- 6 2016

1. If a line is drawn parallel to one side of a triangle intersecting the other two sides in distinct points, then the other two sides are divided in the same ratio prove it.

2. D is a point on the side BC of a triangle ABC such that $\angle ADC = \angle BAC$. Show that $CA^2 = CB \cdot CD$
3. A vertical pole of a length 6 m casts a shadow 4m long on the ground and at the same time a tower casts a shadow 28 m long. Find the height of the tower.

5 MARKS QUESTION CHAPTER- 6 2017

1. Diagonals AC and BD of a trapezium ABCD with $AB \parallel DC$ intersect each other at the point O. Using a similarity criterion for two triangles, show that $AO/OC = OB/OD$
2. In a right-angled triangle, the square of the hypotenuse side is equal to the sum of squares of the other two sides

5 MARKS QUESTION CHAPTER- 6 2018

1. Prove that if a line is drawn parallel to one side of a triangle intersecting the other two sides in distinct points, then the other two sides are divided in the same ratio.
2. A vertical pole of a length 6 m casts a shadow 4m long on the ground and at the same time a tower casts a shadow 28 m long. Find the height of the tower.

1 marks questions chapter-6 2019

1. fill in the blank

All squares are.....(similar, congruent)

All circles are _____. (congruent, similar)

All _____ triangles are similar. (isosceles, equilateral)

5 MARKS QUESTION CHAPTER- 6 2019

1. prove that the ratio of the area of two similar triangle is equal to the square of the ratios of corresponding sides.
2. In a right-angled triangle, the square of the hypotenuse side is equal to the sum of squares of the other two sides

1 marks questions chapter-6 2020

1. sides of two similar triangles are in the ratio 9:16 area of these triangles ratio:

(a) 9:256 (b) 81:16 (c) 81:256

5 marks questions chapter-6 2020

1.If a line is drawn parallel to one side of a triangle intersecting the other two sides in distinct points, then the other two sides are divided in the same ratio.

2.In a triangle , if the square of one side is equal to the sum of the square of other sides, then the angle opposite to the first side is right angle. prove it .

1 marks questions chapter-6 2021

All _____ triangles are similar. (isosceles, equilateral)

1.All squares are.....(similar,congruent)

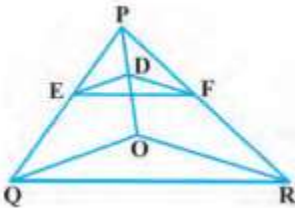
2. All _____ triangles are similar. (isosceles, equilateral)

3. If a line divides any two sides of a triangle in the same ratio, then the line is to the third side.

(a) parallel (b) perpendicular (c) proportional

3 marks question chapter-6 2021

In the figure, $DE \parallel OQ$ and $DF \parallel OR$, show that $EF \parallel QR$.



5 marks questions chapter-6 2021

1.In a triangle , if the square of one side is equal to the sum of the square of other sides, then the angle opposite to the first side is right angle. prove it .

2.If a line is drawn parallel to one side of a triangle intersecting the other two sides in distinct points, then the other two sides are divided in the same ratio

A vertical pole of a length 6 m casts a shadow 4m long on the ground and at the same time a tower casts a shadow 28 m long. Find the height of the tower.

3.In a right-angled triangle, the square of the hypotenuse side is equal to the sum of squares of the other two sides

1 marks questions chapter-6 2022

1.All squares are.....(similar,congruent)

2. All _____ triangles are similar. (isosceles, equilateral)

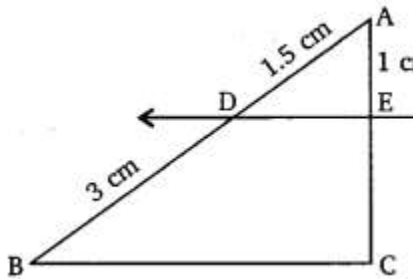
5 marks questions chapter-6 2022

1. In a right-angled triangle, the square of the hypotenuse side is equal to the sum of squares of the other two sides

2. If a line is drawn parallel to one side of a triangle intersecting the other two sides in distinct points, then the other two sides are divided in the same ratio

1 marks questions chapter-6 2023

1. In the given figure EC is equal to :



- (a) 1cm (b) 2cm (c) 3 cm

5 marks questions chapter-6 2023

.If a line is drawn parallel to one side of a triangle intersecting the other two sides in distinct points, then the other two sides are divided in the same ratio

5 marks questions chapter-6 2024

1. If a line is drawn parallel to one side of a triangle intersecting the other two sides in distinct points, then the other two sides are divided in the same ratio

2. In a right-angled triangle, the square of the hypotenuse side is equal to the sum of squares of the other two sides

CHAPTER- 7 (COORDINATE GEOMETRY) PYQ

2 marks question chapter-7 2016

1. Find the distance between the following pairs of points:

(i) (2, 3), (4, 1) (A)

(ii) (-5, 7), (-1, 3) (B)

(iii) $(0,0), (36,15)$

3 marks questions chapter -7 2016

1. Find the value of K , if the points $A(7,-2)$, $B(5,1)$ and $C(3,k)$ are collinear
2. Find the ratio in which the line segment joining the points $(-3, 10)$ and $(6, -8)$ is divided by $(-1, 6)$.
3. Find the value of K , if the points $A(8, 1)$, $B(K,-4)$ and $C(2,-5)$ are collinear.
4. Find the coordinates of the point which divides the join of $(4, -3)$ and $(8, 5)$ in the ratio $3 : 1$.

3 marks questions chapter -7 2017

1. the point on the x -axis which is equidistant from $(2, -5)$ and $(-2, 9)$.
2. Find the values of y for which the distance between the points $P(2, -3)$ and $Q(10, y)$ is 10 units
3. Find the relation between x and y such that point (x,y) is equidistant from the point $(7,1)$ and $(3,5)$.

3 marks question chapter-7 2018

1. If $Q(0, 1)$ is equidistant from $P(5, -3)$ and $R(x, 6)$, find the values of x . Also find the distance QR and PR . Find
2. the point on the x -axis which is equidistant from $(2, -5)$ and $(-2, 9)$.

2 marks question chapter-7 2019

. Find the distance between the following pairs of points:

- (i) $(2, 3), (4, 1)$
- (ii) $(-5, 7), (-1, 3)$
- (iii) $(a, b), (-a, -b)$

3 marks question chapter-7 2019

1. Find the area of a rhombus if its vertices are $(3, 0)$, $(4, 5)$, $(-1, 4)$ and $(-2, -1)$ taken in order.

Find the coordinates of the points of trisection of the line segment joining $(4, -1)$ and $(-2, -3)$.

2. Determine if the points $(1, 5)$, $(2, 3)$ and $(-2, -11)$ are collinear
3. the point on the x -axis which is equidistant from $(2, -5)$ and $(-2, 9)$.

3 marks question chapter-7 2020

1. Find the value of K , if the points $A(7,-2)$, $B(5,1)$ and $C(3,k)$ are collinear ..
2. Find a relation between x and y such that the point (x, y) is equidistant from the points $(3, 6)$ and $(3,4)$.

3. Find the ratio in which the line segment joining the points (-3, 10) and (6, -8) is divided by (-1, 6).

4. Find the values of y for which the distance between the points P (2, -3) and Q (10, y) is 10 unit.

1 marks question chapter-7 2021

1. coordinate of origin are

(a) (x,0) (b) (0,0) (c) (y,0)

2. distance between the points (0,0) and (-2,0)

(a) 1 unit (b) 2 unit (c) 4 unit

3 marks question chapter-7 2021

1. Determine if the points (1, 5), (2, 3) and (-2, -11) are collinear

2. Find the area of a rhombus if its vertices are (3, 0), (4, 5), (-1, 4) and (-2, -1) taken in order.

3. Find the coordinates of the point which divides the join of (-1, 7) and (4, -3) in the ratio 2 : 3.

4. Find the ratio in which the line segment joining the points (-3, 10) and (6, -8) is divided by (-1, 6).

5marks question chapter-7 2021

1. Find the coordinates of the point which divides line segment AB joining A (-2,2) and B (2,8) in to four equal part

2. If (1, 2), (4, y), (x, 6) and (3, 5) are the vertices of a parallelogram taken in order, find x and y

2 marks questions

1). the point on the x-axis which is equidistant from (2, - 5) and (- 2, 9

2. check weather (5,-2), (6,4) and (7,-2) are the vertices of triangle

1 marks questions chapter-6 2022

1. distance between two points (x_1, y_1) and (x_2, y_2) is

(a) $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$. (B) $\sqrt{(x_2 + x_1)^2 + (y_2 - y_1)^2}$. (C) $\sqrt{(x_1 - y_1)^2 + (x_2 - y_2)^2}$.

2. the midpoint of the line segment PQ joining the points $P(x_1, y_1), Q(x_2, y_2)$ is

(a) $\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$. (b) $\sqrt{(x_2 + x_1)^2 + (y_2 - y_1)^2}$. (c) $\frac{x_1 - x_2}{2}$,

3 marks questions chapter -7 2022

1. Check whether (5, - 2), (6, 4) and (7, - 2) are the vertices of an isosceles triangle.

2. Find the value of K, if the points A (7,-2), B (5,1) and C (3,k) are collinear ..

3. Find the values of y for which the distance between the points P (2, -3) and Q (10, y) is 10 units

4. Find a relation between x and y such that the point (x, y) is equidistant from the points (7, 1) and (-3, 5).

1 marks questions chapter- 7 2023

1. distance between the points (0,0) and (-2,0)

(a) 1 unit (b) 2 unit (c) 4 unit

2. coordinate of point on x- axis are

(a) (x,0) (b) (0,0) (c) (y,0)

3 marks questions chapter-7 2023

1. If A and B are (-2, -2) and (2, -4), respectively, find the coordinates of P such that AP = 37 AB and P lies on

2. Find the ratio in which the line segment joining the points (-3, 10) and (6, -8) is divided by (-1, 6).

the line segment AB.

3. find the point on the x-axis which is equidistant from (2, - 5) and (- 2, 9)

3 marks questions chapter-7 2024

1. find the point on the x-axis which is equidistant from (2, - 5) and (- 2, 9)

2. Find the ratio in which the line segment joining the points (-3, 10) and (6, -8) is divided by (-1, 6).

CHAPTER -8 (INTRODUCTION OF TRIGNOMETRY) PYQ

3 MARKS QUESTION CHAPTER -8 2016

1. If $\sin A = \frac{3}{4}$, calculate $\cos A$ and $\tan A$.

2. prove the identity $(1 + \sec A)/\sec A = \sin^2 A/(1 - \cos A)$

3. Given $15 \cot A = 8$, find $\sin A$ and $\sec A$.

4. Prove the identity $\frac{\cos A}{1 + \sin A} + \frac{1 + \sin A}{\cos A} = 2 \sec A$

5. Given $\sec \theta = \frac{13}{12}$, calculate all other trigonometric ratios.

6. prove that identity $(\operatorname{cosec} \theta - \cot \theta)^2 = \frac{(1 - \cos \theta)}{(1 + \cos \theta)}$

3 MARKS QUESTION CHAPTER -8 2017

1. prove that identity $(\operatorname{cosec} \theta - \cot \theta)^2 = \frac{(1 - \cos \theta)}{(1 + \cos \theta)}$

2. Evaluate $\sin 60^\circ \cos 30^\circ + \sin 30^\circ \cos 60^\circ$

3. Prove the identity $\frac{\cos A}{1 + \sin A} + \frac{1 + \sin A}{\cos A} = 2 \sec A$

4. If $\tan(A + B) = \sqrt{3}$ and $\tan(A - B) = 1/\sqrt{3}$, $0^\circ < A + B \leq 90^\circ$; $A > B$, find A and B.

5. Prove that identity $\sqrt{\frac{1 + \sin A}{1 - \sin A}} = \sec A + \tan A$

6. Evaluate $\frac{\cos 35^\circ}{\sec 30^\circ + \operatorname{cosec} 30^\circ}$

3 MARKS QUESTION CHAPTER -8 2018

prove that $(\sin \theta - 2\sin^3 \theta)/(2\cos^3 \theta - \cos \theta) = \tan \theta$

prove that $(\operatorname{cosec} \theta - \cot \theta)^2 = (1 - \cos \theta)/(1 + \cos \theta)$

Evaluate $2 \tan^2 45^\circ + \cos^2 30^\circ - \sin^2 60^\circ$

prove that $\tan 48^\circ \tan 23^\circ \tan 42^\circ \tan 67^\circ = 1$

if $\sec \theta = \frac{13}{12}$, calculate the value of $\sin \theta$ and $\tan \theta$

1 MARKS QUESTION CHAPTER -8 2019

1. According to pythagoras thorem $(3)^2 + (4)^2$

(a) $(2)^2$ (b) $(5)^2$ (c) $(7)^2$

2. $9 \sec^2 A - 9 \tan^2 A$ is equal to

(a) 1 (b) 9 (c) 0

3. According to pythagoras thorem $(7)^2 + (24)^2$

(a) $(23)^2$ (b) $(25)^2$ (c) $(26)^2$

4. According to pythagoras thorem $(5)^2 + (12)^2$

(a) $(13)^2$ (b) $(14)^2$ (c) $(17)^2$

3 MARKS QUESTION CHAPTER -8 2019

prove that $(\sin \theta - 2\sin^3\theta)/(2\cos^3\theta - \cos \theta) = \tan \theta$

$$(1 + \sec A)/\sec A = \sin^2 A/(1 - \cos A)$$

$$(\operatorname{cosec} A - \sin A)(\sec A - \cos A) = 1/(\tan A + \cot A)$$

2 MARKS QUESTION CHAPTER -8 2019

1. Evaluate $(5\cos^2 60^\circ + 4\sec^2 30^\circ - \tan^2 45^\circ)/(\sin^2 30^\circ + \cos^2 30^\circ)$

2. Evaluate $\sin 60^\circ \cos 30^\circ + \sin 30^\circ \cos 60^\circ$

1 MARKS QUESTION CHAPTER -8 2020

1. In right triangle ABC, base and perpendicular are 4 cm and 3 cm respectively. The hypotenuse of the right triangle ABC is

- (a) 5cm (b) 7cm (c) 12 cm

2. The sides of right triangle are :

- (a) 13cm, 12cm, 5cm (b) 3cm, 6cm, 8cm (c) 7cm, 23cm, 25 cm

3. Trigonometry identity $\operatorname{cosec}^2 A - \cot^2 A = \dots\dots\dots$

- (a) 1 (b) 2 (c) -1

4. According to Pythagoras' theorem.....

- (a) $\text{base}^2 + \text{perpendicular}^2$ (b) $\text{base}^2 + \text{perpendicular}$ (c) $\text{base} + \text{perpendicular}$

5. Trigonometry identity $\sec^2 A - \tan^2 A = \dots\dots\dots$

- (a) 1 (b) 2 (c) -1

3 MARKS QUESTION CHAPTER -8 2020

$$(1 + \sec A)/\sec A = \sin^2 A/(1 - \cos A)$$

$$\sqrt{1 + \sin A}/1 - \sin A = \sec A + \tan A$$

2. Evaluate $\sin 60^\circ \cos 30^\circ + \sin 30^\circ \cos 60^\circ$

prove that $\tan 48^\circ \tan 23^\circ \tan 42^\circ \tan 67^\circ = 1$

if $\sec \theta = \frac{13}{12}$, calculate the value of $\sin \theta$ and $\tan \theta$

1MARKS QUESTION CHAPTER -8 2021

1. According to pythagoras thorem $(8)^2 + (6)^2 \dots\dots\dots$

- (a) $(9)^2$ (b) $(7)^2$ (c) $(10)^2$

2. According to pythagoras thorem $(5)^2 + (12)^2 \dots\dots\dots$

- (a) $(13)^2$ (b) $(14)^2$ (c) $(17)^2$

3MARKS QUESTION CHAPTER -8 2021

1. If $\sin A = \frac{3}{4}$, calculate $\cos A$ and $\tan A$

2. Evaluate $2 \tan^2 45^\circ + \cos^2 30^\circ - \sin^2 60^\circ$

1MARKS QUESTION CHAPTER -8 2022

1. $\sin^2 \theta + \dots\dots\dots = 1$

- a) $\tan^2 \theta$ (b) $\cos^2 \theta$ (c) $\text{cosec}^2 \theta$

2. $\frac{1}{\sin \theta} = \dots\dots\dots$

- a) $\sec \theta$ (b) $\cot \theta$ (c) $\text{cosec} \theta$

3. the value of $\sin 45^\circ$ is

- a) $\frac{1}{\sqrt{2}}$ (b) $\frac{1}{2}$ (c) 1

4. if $\sin A = \frac{3}{4}$, then the hypotenuse will be:

- (a) 3 (b) 4 (c) 1

5. the value of $\cos 90^\circ$ is

- (a) 2 (b) 0 (c) 1

6. $\tan \theta \times \cot \theta = \dots\dots\dots$

- a) 1 (b) 0 (c) - 1

7. $\cos \theta \times \sec \theta = \dots\dots\dots$

- a) 1 (b) 0 (c) - 1

5. the value of $\sin 90^\circ$ is

- (a) -1 (b) 0 (c) 1

6. $1 + \cot^2 \theta = \dots\dots\dots$

- a) $\tan^2 \theta$ (b) $\cos^2 \theta$ (c) $\operatorname{cosec}^2 \theta$

2MARKS QUESTION CHAPTER -8 2022

2. Evaluate $\sin 60^\circ \cos 30^\circ + \sin 30^\circ \cos 60^\circ$

Evaluate $2 \tan^2 45^\circ + \cos^2 30^\circ - \sin^2 60^\circ$

. Evaluate $2 \tan 30^\circ / (1 + \tan^2 30^\circ)$

3MARKS QUESTION CHAPTER -8 2022

1. prove that $\sqrt{1 + \sin A} / (1 - \sin A) = \sec A + \tan A$

2. prove that $(1 + \sec A) / \sec A = \sin^2 A / (1 - \cos A)$

3. prove that $(\operatorname{cosec} \theta - \cot \theta)^2 = (1 - \cos \theta) / (1 + \cos \theta)$

4. If $\sin A = \frac{3}{4}$, then calculate the value of $\cos A$ and $\tan A$

2MARKS QUESTION CHAPTER -8 2023

1. In triangle ABC, right -angled at C, AB = 24cm and BC = 7 cm then determine $\sin C$ and $\cos C$

. In triangle ABC, right -angled at C, AB = 24cm and BC = 7 cm . then determine $\sin A$ and $\cos A$

1. . In triangle ABC, right -angled at A, in which BC = 29cm and AB = 21 cm . then determine $\sin B$ and $\cos B$

1MARKS QUESTION CHAPTER -8 2023

1. $\frac{1}{\tan A} = \dots\dots\dots$

- a) $\sec A$ (b) $\cot A$ (c) $\operatorname{cosec} A$

2.. the value of $\sin 60^\circ$ is

- (a) $\frac{\sqrt{3}}{2}$ (b) $\frac{1}{2}$ (c) $\frac{1}{\sqrt{2}}$

3. $\frac{1}{\sin A} = \dots\dots\dots$

- a) $\sec A$ (b) $\cot A$ (c) $\csc A$

4. $\cos A \times \sec A = \dots\dots\dots$

- (a) -1 (b) 0 (c) 1

5. the value of $\frac{\tan 65^\circ}{\cot 25^\circ}$ is :

- (a) 3 (b) 2 (c) 1

6. the value of $\tan 45^\circ$ is

- (a) $\frac{1}{2}$ (b) 2 (c) 1

3 MARKS QUESTION CHAPTER -8 2023

1. prove that $(\sin \theta - 2\sin^3\theta)/(2\cos^3\theta - \cos \theta) = \tan \theta$
 2. prove that $(\operatorname{cosec} \theta - \cot \theta)^2 = (1 - \cos \theta)/(1 + \cos \theta)$
- 3. Evaluate** $2 \tan^2 45^\circ + \cos^2 30^\circ - \sin^2 60^\circ$

CHAPTER -9 (SOME APPLICATION OF TRIGNOMETRY) PYQ

5 MARKS QUESTION CHAPTER - 9 2016

1. The angle of elevation of the top of a tower from a point on the ground, which is 30 m away from the foot of the tower is 30° . Find the height of the tower.
2. A Tower stand vertically on the ground . from a point on the ground which is 15 m away from the foot of the tower , the angle of elevation of top of tower is found to be 60° , find the height of tower.
3. A kite is flying at a height of 60 m above the ground. The string attached to the kite is temporarily tied to a point on the ground. The inclination of the string with the ground is 60° . Find the length of the string, assuming that there is no slack in the string.

5 MARKS QUESTION CHAPTER - 9 2017

1. From a point on the ground, the angles of elevation of the bottom and the top of a transmission tower fixed at the top of a 20 m high building are 45° and 60° respectively. Find the height of the tower.
2. A tree breaks due to storm and the broken part bends so that the top of the tree touches the ground making an angle 30° with it. The distance between the foot of the tree to the point where the top touches the ground is 8 m. Find the height of the tree.

3. The angle of elevation top of the tower from the two points at a distance of 4m and 9m from the base of the tower and the same straight line with are complimentary prove the height of tower is 6m.

5 MARKS QUESTION CHAPTER - 9 2018

1. From the top of a 7 m high building, the angle of elevation of the top of a cable tower is 60° and the angle of depression of its foot is 45° . Determine the height of the tower.

2. As observed from the top of a 75 m high lighthouse from the sea-level, the angles of depression of two ships are 30° and 45° . If one ship is exactly behind the other on the same side of the lighthouse, find the distance between the two ships

3. A statue, 1.6 m tall, stands on the top of a pedestal. From a point on the ground, the angle of elevation of the top of the statue is 60° and from the same point the angle of elevation of the top of the pedestal is 45° . Find the height of the pedestal.

5 MARKS QUESTION CHAPTER - 9 2019

1. A kite is flying at a height of 60 m above the ground. The string attached to the kite is temporarily tied to a point on the ground. The inclination of the string with the ground is 60° . Find the length of the string, assuming that there is no slack in the string.

2. The angle of elevation top of the tower from the two points at a distance of 4m and 9m from the base of the tower and the same straight line with are complimentary prove the height of tower is 6m.

5 MARKS QUESTION CHAPTER - 9 2020

1. A kite is flying at a height of 60 m above the ground. The string attached to the kite is temporarily tied to a point on the ground. The inclination of the string with the ground is 60° . Find the length of the string, assuming that there is no slack in the string.

2. The angle of elevation top of the tower from the two points at a distance of 4m and 9m from the base of the tower and the same straight line with are complimentary prove the height of tower is 6m.

3. The angle of elevation of the top of a tower from a point on the ground, which is 30 m away from the foot of the tower is 30° . Find the height of the tower.

4. Two poles of height 6m and 11m stand on a plane ground. if the distance between the feet of the poles is 12 m ,find distance between their tops.

5 MARKS QUESTION CHAPTER - 9 2021

1. From a point on the ground, the angles of elevation of the bottom and the top of a transmission tower fixed at the top of a 20 m high building are 45° and 60° respectively. Find the height of the tower.

2. A tree breaks due to storm and the broken part bends so that the top of the tree touches the ground making an angle 30° with it. The distance between the foot of the tree to the point where the top touches the ground is 8 m. Find the height of the tree.

5 MARKS QUESTION CHAPTER - 9 2022

A kite is flying at a height of 60 m above the ground. The string attached to the kite is temporarily tied to a point on the ground. The inclination of the string with the ground is 60° . Find the length of the string, assuming that there is no slack in the string.

The angle of elevation top of the tower from the two points at a distance of 4m and 9m from the base of the tower and the same straight line with are complimentary prove the height of tower is 6m.

3.The angle of elevation of the top of a tower from a point on the ground, which is 30 m away from the foot of the tower is 30° . Find the height of the tower.

5 MARKS QUESTION CHAPTER - 9 2023

From a point on the ground, the angles of elevation of the bottom and the top of a transmission tower fixed at the top of a 20 m high building are 45° and 60° respectively. Find the height of the tower.

The angle of elevation of the top of a building from the foot of a tower is 30° and the angle of elevation of the top of the tower from the foot of the building is 60° . If the tower is 50 m high, find the height of the building

A tree breaks due to storm and the broken part bends so that the top of the tree touches the ground making an angle 30° with it. The distance between the foot of the tree to the point where the top touches the ground is 8 m. Find the height of the tree.

CHAPTER -10 (CIRCLES) PYQ

3 MARKS QUESTION CHAPTER-10 2016

1. The length of a tangent from a point A at a distance 5cm from the centre of circle is 4cm . find the radius of circle
2. from a point Q the length of the tangent to a circle is 24 cm and the distance of Q from the centre is 25 cm . find the length of radius of circle.
3. A quadrilateral ABCD is drawn to circumscribe a circle .Prove that $AB + CD = AD + BC$

3 MARKS QUESTION CHAPTER-10 2017

1. from a point Q the length of the tangent to a circle is 24 cm and the distance of Q from the centre is 25 cm . find the length of radius of circle.
2. Prove that the tangents drawn at the ends of a diameter of a circle are parallel.
3. Prove that the angle between the two tangents drawn from an external point to a circle is supplementary to the angle subtended by the line-segment joining the points of contact at the center.

2 MARKS QUESTION CHAPTER-10 2018

1. The length of a tangent from a point A at a distance 5 cm from the centre of circle is 4 cm. Find the radius of circle

3 MARKS QUESTION CHAPTER-10 2018

Tangents PA and PB from a point P to a circle with centre O are inclined to each other at an angle of 80° , then $\angle POA$

The length of a tangent from a point A at distance 5 cm from the centre of the circle is 4 cm. Find the radius of the circle.

Two concentric circles are of radii 5 cm and 3 cm. Find the length of the chord of the larger circle which touches the smaller circle.

1 MARKS QUESTION CHAPTER-10 2019

1. A tangent PQ at a point P of a circle of radius 5 cm meets a line through the centre O at a point Q so that $OQ = 12$ cm. Length PQ is

(a) 12 cm (b) 13 cm (c) 8.5 cm (d) $\sqrt{119}$ cm

2. If angle between two radii of a circle is 110° the angle between the tangents at the ends of the radii is: (a) 90° (b) 80° (c) 70°

3. A line intersecting two points is called

(a) Chord (b) tangent (c) secant

4. The common point of a tangent and the circle is called:

(a) point of contact (b) radius (c) secant line

3 MARKS QUESTION CHAPTER-10 2019

1. Prove that the lengths of tangents drawn from an external point to a circle are equal

The length of a tangent from a point A at distance 5 cm from the centre of the circle is 4 cm. Find the radius of the circle.

Two concentric circles are of radii 5 cm and 3 cm. Find the length of the chord of the larger circle which touches the smaller circle.

3 MARKS QUESTION CHAPTER-10 2020

The length of a tangent from a point A at distance 5 cm from the centre of the circle is 4 cm. Find the radius of the circle.

2. prove that tangent drawn at the ends of a diameter of a circle are parallel .

1.A tangent PQ at a point P of a circle of radius 5 cm meets a line through the centre O at a point Q so that $OQ = 12$ cm. Length PQ is

3 MARKS QUESTION CHAPTER-10 2021

Prove that the perpendicular at the point of contact to the tangent to a circle passes through the centre.

1 MARKS QUESTION CHAPTER-10 2022

1.A tangent of a circle touches it at point (s)

(a) 2 (b) 1 (c) 3

2. how many tangents can a circle have ?

(a) infinite (b) 2 (c) 4

2 MARKS QUESTION CHAPTER-10 2022

1. from a point Q the length of the tangent to a circle is 24 cm and the distance of Q from the centre is 25 cm . find the length of radius of circle.

3 MARKS QUESTION CHAPTER-10 2022

Prove that the perpendicular at the point of contact to the tangent to a circle passes through the centre

Two concentric circles are of radii 5 cm and 3 cm. Find the length of the chord of the larger circle which touches the smaller circle.

1.A tangent PQ at a point P of a circle of radius 5 cm meets a line through the centre O at a point Q so that $OQ = 12$ cm. Length PQ is

1 MARKS QUESTION CHAPTER-10 2023

1. 2. how many tangents can a circle have ?

(a) infinite (b) 2 (c) 4

2. IF angle between two radii of a circle is 110° the angle between the tangents at the ends of the radii is: (a) 90° (b) 80° (c) 70°

3.If the distance between two parallel tangents to a circle is 10cm , then the radius of the circle will be:

(a) 5cm (b) 10cm (c) 20cm

4. A circle can have parallel tangents at the most .

(a) 3 (b) 2 (c) 1

5. if the distance between two parallel tangents to a circle is 6cm , the radius of circle will be:

(a) 6cm (b) 3cm (c) 12cm

6. how many tangents can be drawn to the circle from a point outside the circle

(a) 3 (b) 2 (c) 4

3 MARKS QUESTION CHAPTER-10 2023

1. from a point Q the length of the tangent to a circle is 24 cm and the distance of Q from the centre is 25 cm . find the length of radius of circle.

2. the length of tangent from a point R at distance 10cm from the centre of the circle is 8cm find the radius of the circle

3. The length of a tangent from a point A at distance 5 cm from the centre of the circle is 4 cm. Find the radius of the circle.

CHAPTER - 11(AREA OF PLANE FIGURE) PYQ

3 MARKS QUESTIONS 2016 chapter-11

1. To warn ships for underwater rocks, a lighthouse spreads a red coloured light over a sector of angle 80° to a distance of 16.5 km. Find the area of the sea over which the ships are warned

2. An umbrella has 8 ribs which are equally spaced (see Fig. 12.13). Assuming the umbrella to be a flat circle of radius 45 cm, find the area between the two consecutive ribs of the umbrella.

3. A car has two wipers which do not overlap. Each wiper has a blade of length 25 cm sweeping through an angle of 115° . Find the total area cleaned at each sweep of the blades.

3 MARKS QUESTIONS 2017 chapter-11

1. .The length of the minute hand of a clock is 14 cm. Find the area swept by the minute hand in 5 minutes.

2. Find the area of a quadrant of a circle whose circumference is 22 cm.

3. A chord of a circle of radius 10 cm subtends a right angle at the centre. Find the area of the corresponding:

(i) minor segment

(ii) major sector. (Use $\pi = 3.14$)

3 MARKS QUESTIONS 2018

1. Find the area of a sector of a circle with radius 6 cm if angle of the sector is 60° .

2. The length of the minute hand of a clock is 14 cm. Find the area swept by the minute hand in 5 minutes.

3. An umbrella has 8 ribs which are equally spaced. Assuming umbrella to be a flat circle of radius 45 cm, find the area between the two consecutive ribs of the umbrella.

1 MARKS QUESTIONS 2019

1. Area of circle is

(a) $\frac{1}{2}\pi r^2$ (b) πr^2 (c) $3\pi r^2$

3 MARKS QUESTIONS 2019

1. Find the area of a quadrant of a circle whose circumference is 22 cm.

2. A chord of a circle of radius 15 cm subtends an angle of 60° at the centre. Find the areas of the corresponding minor and major segments of the circle.

1 MARKS QUESTIONS CHAPTER-11 2020

1. Area of sector of a angle P of the circle with radius R is:

(a) $\frac{p}{180} \times 2\pi r$ (b) $\frac{p}{360} \times 2\pi r$ (c) $\frac{p}{720} \times 2\pi r$

3 MARKS QUESTIONS CHAPTER-11 2020

1. A car has two wipers which do not overlap. Each wiper has a blade of length 25 cm sweeping through an angle of 115° . Find the total area cleaned at each sweep of the blades.

2. The length of the minute hand of a clock is 14 cm. Find the area swept by the minute hand in 5 minutes.

1 MARKS QUESTION CHAPTER-11 2021

1. 1. Area of sector of a angle P of the circle with radius R is:

(a) $\frac{p}{180} \times 2\pi r$ (b) $\frac{p}{360} \times 2\pi r$ (c) $\frac{p}{720} \times 2\pi r$

2. If 'r' is the radius of the circle, then diameter D =

(a) πr (b) $\frac{r}{2}$ (c) $2r$

3. The radius of circle is 14cm then its circumference is

- (a) 144 (b) 44 cm^2 (c) 88cm

3 MARKS QUESTION CHAPTER-11 2021

- 1.The length of the minute hand of a clock is 14 cm. Find the area swept by the minute hand in 5 minutes.
2. Find the area of a sector of a circle with radius 6 cm if angle of the sector is 60° .

1 MARKS QUESTION CHAPTER-11 2022

1. circumference of circle is :

- (a) πr (b) $2 \pi r$ (c) $3 \pi r$

2. Area of circle will be:

- (a) $2\pi r^2$ (b) $3\pi r^2$ (c) πr^2

3.Length of an arc of sector with centre angle θ and radius r will be:

- (a) $\frac{\theta}{360^\circ} \times 2\pi r$ (b) $\frac{\theta}{360^\circ} \times \pi r$ (c) $\frac{\theta}{180^\circ} \times 2\pi r$

4. The ratios of circumference and diameter of a circle is:

- (a) $2\pi:1$ (b) $\pi:1$ (c) $2:1$

3 MARKS QUESTION CHAPTER-11 2022

1. Find the area of a sector of a circle with radius 6 cm if angle of the sector is 60° .
2. In a circle of radius 21 cm, an arc subtends an angle of 60° at the centre. Find: (i) the length of the arc
3. A chord of a circle of radius 10 cm subtends a right angle at the centre. Find the area of the corresponding minor segment

1 MARKS QUESTION CHAPTER-11 2023

1.Length of an arc of sector with centre angle θ and radius r will be:

- (a) $\frac{\theta}{360^\circ} \times 2\pi r$ (b) $\frac{\theta}{360^\circ} \times \pi r$ (c) $\frac{\theta}{180^\circ} \times 2\pi r$

3 MARKS QUESTION CHAPTER-11 2023

- 1.. Find the area of a sector of a circle with radius 6 cm if angle of the sector is 60° .
2. A chord of a circle of radius 10 cm subtends a right angle at the centre. Find the area of the corresponding minor segment

3. In a circle of radius 21 cm, an arc subtends an angle of 60° at the centre. Find: (i) the length of the arc

CHAPTER -12 (SURFACE AREA AND VOLUMES) PYQ

3 MARKS QUESTION CHAPTER-12 2016

1. A vessel is in the form of a hollow hemisphere mounted by a hollow cylinder. The diameter of the hemisphere is 14 cm, and the total height of the vessel is 13 cm. Find the inner surface area of the vessel.

5 MARKS QUESTION CHAPTER-12 2018

1. A toy is in the form of a cone of radius 3.5 cm mounted on a hemisphere of same radius. The total height of the toy is 15.5 cm. Find the total surface area of toys

2. A solid iron pole consists of a cylinder of height 220 cm and base diameter 24 cm, which is surmounted by another cylinder of height 60 cm and radius 8 cm. Find the mass of the pole, given that 1 cm^3 of iron has approximately 8 g mass.

5 MARKS QUESTION CHAPTER-12 2019

1. A cubical block of side 7 cm is surmounted by a hemisphere. What is the greatest diameter the hemisphere can have? Find the surface area of the solid.

5 MARKS QUESTION CHAPTER-12 2020

1. A vessel is in the form of an inverted cone. Its height is 8 cm and the radius of its top, which is open, is 5 cm. It is filled with water up to the brim. When lead shots, each of which is a sphere of radius 0.5 cm, are dropped into the vessel, one-fourth of the water flows out. Find the number of lead shots dropped in the vessel.

2. Two cubes each of volume 64 cm^3 are joined end to end. Find the surface area of the resulting cuboid.

5 MARKS QUESTION CHAPTER-12 2021

1. 2 cubes each of volume 64 cm^3 are joined end to end. Find the surface area of the resulting cuboid.

1 MARKS QUESTION CHAPTER-12 2022

1. The volume of cube having side l is

- (a) l^3 (b) $6l^2$ (c) $4l^3$

2.the volume of cuboid having dimensions 4cm×3cm×2cm will be:

- (a) 9cm^3 (b) 20cm^3 (c) 24cm^3

3.Curve surface area of cone is:

- (a) πrl (b) $2\pi rl$ (c) $3\pi rl$

4. Area of circle will be :

- (a) $2\pi r$ (b) πr^2 (c) $3\pi r^2$

5 MARKS QUESTION CHAPTER-12 2022

1. 2 cubes each of volume 64 cm^3 are joined end to end. Find the surface area of the resulting cuboid.
2. A solid is in the shape of a cone standing on a hemisphere, both having radii of 1 cm, and the height of the cone is equal to its radius. Find the volume of the solid in terms of π .
3. A toy is in the form of a cone of radius 3.5 cm mounted on a hemisphere of same radius. The total height of the toy is 15.5 cm. Find the total surface area of toys
4. A vessel is in the form of a hollow hemisphere mounted by a hollow cylinder. The diameter of the hemisphere is 14 cm, and the total height of the vessel is 13 cm. Find the inner surface area of the vessel.

1 MARKS QUESTION CHAPTER-12 2023

1.The volume of hemisphere is:

- (a) $\frac{2}{3}\pi r^3$ (b) $\frac{4}{3}\pi r^3$ (c) πr^3

2.The volume of cylinder is

- (a) πr^2h (b) $2\pi r^2h$ (c) $3\pi r^2h$

5 MARKS QUESTION CHAPTER-12 2023

1. cubes each of volume 64 cm^3 are joined end to end. Find the surface area of the resulting cuboid

5 MARKS QUESTION CHAPTER-12 2024

1. 2 cubes each of volume 64 cm^3 are joined end to end. Find the surface area of the resulting cuboid
2. A toy is in the form of a cone of radius 3.5 cm mounted on a hemisphere of same radius. The total height of the toy is 15.5 cm. Find the total surface area of toys

3. . A solid iron pole consists of a cylinder of height 220 cm and base diameter 24 cm, which is surmounted by another cylinder of height 60 cm and radius 8 cm. Find the mass of the pole, given that 1 cm³ of iron has approximately 8 g mass.

CHAPTER-13 (STATISTICS) PYQ

5 MARKS QUESTION CHAPTER-13 2016

1. If the median of a distribution given below is 28.5, find the value of x & y .

Class Interval	Frequency
0-10	5
10-20	x
20-30	20
30-40	15
40-50	y
50-60	5
Total	60

2. The following table gives the distribution of a lifetime of 400 neon lamps.

Lifetime (in hours)	Number of lamps
1500-2000	14
2000-2500	56
2500-3000	60
3000-3500	86
3500-4000	74
4000-4500	62
4500-5000	48

Find the median lifetime of a lamp.

5 MARKS QUESTION CHAPTER-13 2017

1. The distribution below gives the weights of 30 students of a class. Find the median weight of the students.

Weight(in kg)	40-45	45-50	50-55	55-60	60-65	65-70	70-75
Number of students	2	3	8	6	6	3	2

2. If the median of a distribution given below is 28.5, find the value of x & y .

Class Interval	Frequency
0-10	5
10-20	x
20-30	20
30-40	15
40-50	y
50-60	5

2. The following data gives the information on the observed lifetimes (in hours) of 225 electrical components:

Lifetime (in hours)	0-20	20-40	40-60	60-80	80-100	100-120
Frequency	10	35	52	61	38	29

5 MARKS QUESTION CHAPTER-13 2018

1. . The following table gives the distribution of a lifetime of 400 neon lamps.

Lifetime (in hours)	Number of lamps
1500-2000	14
2000-2500	56
2500-3000	60
3000-3500	86

3500-4000	74
4000-4500	62
4500-5000	48

Find the median lifetime of a lamp.

2. The distribution below gives the weights of 30 students of a class. Find the median weight of the students.

Weight(in kg)	40-45	45-50	50-55	55-60	60-65	65-70	70-75
Number of students	2	3	8	6	6	3	2

3. The following table gives the literacy rate (in percentage) of 35 cities. Find the mean literacy rate.

Literacy rate (in %)	45 – 55	55 – 65	65 – 75	75 – 85	85 – 95
Number of cities	3	10	11	8	3

5 MARKS QUESTION CHAPTER-13 2019

1. . The following table gives the literacy rate (in percentage) of 35 cities. Find the mean literacy rate.

Literacy rate (in %)	45 – 55	55 – 65	65 – 75	75 – 85	85 – 95
Number of cities	3	10	11	8	3

2. The following data gives the information on the observed lifetimes (in hours) of 225 electrical components:

Lifetime (in hours)	0-20	20-40	40-60	60-80	80-100	100-120
Frequency	10	35	52	61	38	29

3. The table below shows the daily expenditure on food of 25 households in a locality.

Daily expenditure(in c)	100-150	150-200	200-250	250-300	300-350
Number of households	4	5	12	2	2

Find the mean daily expenditure on food by a suitable method.

5 MARKS QUESTION CHAPTER-13 2020

1. The table below shows the daily expenditure on food of 25 households in a locality.

Daily expenditure(in c)	100-150	150-200	200-250	250-300	300-350
Number of households	4	5	12	2	2

Find the mean daily expenditure on food by a suitable method.

2. The given distribution shows the number of runs scored by some top batsmen of the world in one- day international cricket matches.

Run Scored	Number of Batsman
3000-4000	4
4000-5000	18
5000-6000	9
6000-7000	7
7000-8000	6
8000-9000	3
9000-10000	1
10000-11000	1

Find the mode of the data.

3. 1. . The following table gives the distribution of a lifetime of 400 neon lamps.

Lifetime (in hours)	Number of lamps
1500-2000	14
2000-2500	56
2500-3000	60
3000-3500	86
3500-4000	74

4000-4500	62
4500-5000	48

Find the median lifetime of a lamp

5 MARKS QUESTION CHAPTER-13 2021-2022

1. The following data gives the information on the observed lifetimes (in hours) of 225 electrical components:

Lifetime (in hours)	0-20	20-40	40-60	60-80	80-100	100-120
Frequency	10	35	52	61	38	29

find the modal lifetime of the components.

2. A survey conducted on 20 households in a locality by a group of students resulted in the following frequency table for the number of family members in a household.

Family size	1-3	3-5	5-7	7-9	9-11
Number of families	7	8	2	2	1

find the mode of this data .

5 MARKS QUESTION CHAPTER-13 2023

1. The given distribution shows the number of runs scored by some top batsmen of the world in one- day international cricket matches.

Run Scored	Number of Batsman
3000-4000	4
4000-5000	18
5000-6000	9
6000-7000	7
7000-8000	6

8000-9000	3
9000-10000	1
10000-11000	1

Find the mode of the data.

2. . The following data gives the distribution of total monthly household expenditure of 200 families of a village. Find the modal monthly expenditure of the families. Also, find the mean monthly expenditure:

Expenditure (in Rs.)	Number of families
1000-1500	24
1500-2000	40
2000-2500	33
2500-3000	28
3000-3500	30
3500-4000	22
4000-4500	16
4500-5000	7

3. The following distribution gives the state-wise teacher-student ratio in higher secondary schools of India. Find the mode and mean of this data. Interpret, the two measures.

Number of students per teacher	Number of States/U.T	Number of students per Teacher	Number of States.U.T
15-20	3	35-40	3
20-25	8	40-45	0

25-30	9	45-50	0
30-35	10		

5 MARKS QUESTION CHAPTER-13 2024

1. . The following data gives the information on the observed lifetimes (in hours) of 225

electrical components:

Lifetime (in hours)	0-20	20-40	40-60	60-80	80-100	100-120
Frequency	10	35	52	61	38	29

find the modal lifetime of the components.

2. . If the median of a distribution given below is 28.5, find the value of x & y.

Class Interval	Frequency
0-10	5
10-20	x
20-30	20
30-40	15
40-50	y
50-60	5

3. The distribution below gives the weights of 30 students of a class. Find the median weight of the students.

Weight(in kg)	40-45	45-50	50-55	55-60	60-65	65-70	70-75
Number of students	2	3	8	6	6	3	2

CHAPTER- 14 (PROBABILITY) PYQ

3 MARKS QUESTIONS CHAPTER-14 2016

1. A bag contains 3 red balls and 5 black balls. A ball drawn at random from the bag. What is the probability that the ball drawn is (i) red ?
2. one card is drawn from a well-shuffled deck of 52 cards, then the probability of getting (i) a king of red colour
3. A bag contains 3 red balls and 5 black balls. A ball drawn at random from the bag. What is the probability that the ball drawn is not red ?
4. A die is thrown once. Find the probability of getting a number lying between 2 and 6

3 MARKS QUESTIONS CHAPTER-14 2017

1. 1. A bag contains 3 red balls and 5 black balls. A ball drawn at random from the bag. What is the probability that the ball drawn is (i) red ?
2. A lot of 20 bulbs contain 4 defective ones. One bulb is drawn at random from the lot. What is the probability that this bulb is defective? Suppose the bulb drawn in is not defective and is not replaced. Now one bulb is drawn at random from the rest. What is the probability that this bulb is not defective
- 3.. A child has a die whose six faces show the letters as given below :
ABCDEA. The die is thrown once. What is the probability of getting
i) A?
ii) D?

3 MARKS QUESTIONS CHAPTER-14 2018

1. . A bag contains 3 red balls and 5 black balls. A ball drawn at random from the bag. What is the probability that the ball drawn is not red ?
2. one card is drawn from a well-shuffled deck of 52 cards, then the probability of getting (i) a king of red colour
3. Gopi buys a fish from a shop for his aquarium. The shopkeeper takes out one fish at random from a tank containing 5 male fish and 8 female fish. What is the probability that the fish taken out is a male fish?
4. A box contains 5 red marbles, 8 white marbles and 4 green marbles. One marble is taken out of the box at random. What is the probability that the marble taken out will be (i) red ?

3 MARKS QUESTIONS CHAPTER-14 2019

1. A lot consists of 144 ball pens of which 20 are defective and the others are good. Nuri will buy a pen if it is good, but will not buy if it is defective. The shopkeeper draws one pen at random and gives it to her.

What is the probability that

(i) She will buy it ? (ii) She will not buy it ?

2. A child has a die whose six faces show the letters as given below :

ABCDEA. The die is thrown once. What is the probability of getting

i) A?

ii) D?

3. A box contains 5 red marbles, 8 white marbles and 4 green marbles. One marble is taken out of the box at random. What is the probability that the marble taken out will be (i) red ? (ii) white (iii) not green

2 MARKS QUESTIONS CHAPTER-14 2020

1. A box contains 3 Blue marbles, 2 white marbles and 4 red marbles. One marble is taken out of the box at random. What is the probability that the marble taken out will be (i) White? (ii) blue ?

2. Two players, Sangeeta and Reshma, play a tennis match. It is known that the probability of Sangeeta's winning the match is 0.62 . What is the probability of Reshma's winning the match?

3. A box contains a red ball , a blue ball and yellow ball , all ball beings the same size . kritika take out of ball from the bag without looking in to it . what is the probability that she take out the

(i) yellow ball ? (ii) red ball ?

2 MARKS QUESTIONS CHAPTER-14 2021

1. If $P(E) = 0.05$, what is the probability of 'not E'?

2. A bag contains lemon-flavoured candies only. Malini takes out one candy without looking into the bag. What is the probability that she takes out

(i) an orange-flavoured candy?

3. It is given that in a group of 3 students, the probability of 2 students not having the same birthday is 0.992. What is the probability that the 2 students have the same birthday?

1 MARKS QUESTIONS CHAPTER-14 2022

1. Probability of an event E+ Probability of an event not E =

- (a) -1 (b) 1 (c) 0

2 MARKS QUESTIONS CHAPTER-14 2022

1. A bag contains 3 red balls and 5 black balls. A ball drawn at random from the bag. What is the probability that the ball drawn is not red ?
2. . A box contains 3 Blue marbles, 2white marbles and 4 red marbles. One marble is taken out of the box at random. What is the probability that the marble taken out will be (i) White? (ii) blue ?
3. . A box contains 5 red marbles, 8 white marbles and 4 green marbles. One marble is taken out of the box at random. What is the probability that the marble taken out will be (i) red ? (ii) white

3 MARKS QUESTIONS CHAPTER-14 2022

1. one card is drawn from a well-shuffled deck of 52 cards, then the probability of getting (i) a king of red colour (ii) be an ace (iii) not be an ace
2. one card is drawn from a well-shuffled deck of 52 cards, then the probability of getting (i) a king of red colour (ii) the jack of hearts
3. Five cards the ten , jack , queen , king and ace of diamonds are well shuffled with their faces downwards, 1 card is then picked up at random
(i) what is the probability that drawn card is a queen ?

2 MARKS QUESTIONS CHAPTER-14 2023

1. If $P(E) = 0.05$, what is the probability of 'not E'?
2. . A box contains 5 red marbles, 8 white marbles and 4 green marbles. One marble is taken out of the box at random. What is the probability that the marble taken out will be (i) red ? (ii) white (case study)

3 MARKS QUESTIONS CHAPTER-14 2023

1. A child has a die whose six faces show the letters as given below :

ABCDEA. The die is thrown once. What is the probability of getting

- (i) A? (ii) D?

- 2.. A box contains 90 discs which are numbered from 1 to 90. If one disc is drawn at random from the box, find the probability that it bears

- (i) a two-digit number

(ii) a perfect square number

3. . one card is drawn from a well-shuffled deck of 52 cards, then the probability of getting (i) a king of red colour (ii) be an ace (iii) not be an ace

2 MARKS QUESTIONS CHAPTER-14 2024

1. If $P(E) = 0.05$, what is the probability of 'not E'?

2. . A die is thrown once. Find the probability of getting

(i) a prime number

3. A die is thrown once. Find the probability of getting

(i) an odd number

3 MARKS QUESTIONS CHAPTER-14 2024

1. . A lot of 20 bulbs contain 4 defective ones. One bulb is drawn at random from the lot. What is the probability that this bulb is defective? Suppose the bulb drawn in is not defective and is not replaced. Now one bulb is drawn at random from the rest. What is the probability that this bulb is not defective

2. 12 defective pens are accidentally mixed with 132 good ones. It is not possible to just look at a pen and tell whether or not it is defective. One pen is taken out at random from this lot. Determine the probability that the pen taken out is a good one

3. A box contains 90 discs which are numbered from 1 to 90. If one disc is drawn at random from the box, find the probability that it bears a number divisible by 5