

# Passing package

(for slow learners)

## LEARN 14 to EARN 35

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### LEARN 14 TO EARN 35

SL. NO	TOPIC	MARKS
1	GRAPH	4M
2	SIMILAR TRIANGLES	3M
3	OGIVE	3M
4	TANGENT,SEGMENT	2M
5	THEOREM	4M
6	THEOREM	3M
7	DISTANCE	2M
8	FORMULA METHOD	2M
9	REAL NUMBERS	2M
10	POLYNOMIAL DIVISION	2M
11	PROBABILITY	2M
12	REAL NUMBERS	2M
13	ZEROES OF POLYNOMIAL	2M
14	LINEAR EQUATION-SOLVE	2M

### Action plan

1.This package contains 6 model papers in which each model paper has 14 most probable questions for the annual exam.all the 14 questions are of 2marks,3marks and 4 marks.

In each model paper there are

2 questions for 4 marks each

3 questions for 3 marks each and

9 questions for 2 marks each.

2. learning process starts in a group headed by a group leader. Groups are formed according to the class strength.

3. teacher should make the students to learn minimum of three questions from each model every day till Friday. On Saturday TEST-1 will be conducted by giving the model-1 as question paper.

This procedure will continue till model-6.

### **Tentative time table**

<b>Date</b>	<b>Test models</b>
January-5	Model-1
January-12	Model-2
January-19	Model-3
January-25	Model-4
February-2	Model-5
February-9	Model-6

#### **4. check list**

<b>Student name</b>	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>Q5</b>	<b>Q6</b>	<b>Q7</b>	<b>Q8</b>	<b>Q9</b>	<b>Q10</b>	<b>Q11</b>	<b>Q12</b>	<b>Q13</b>	<b>Q14</b>
Amar														
Bhavani														

The above check list should be maintained with the help of group leaders after evaluating test papers.

5. In the remaining 5 weeks of time (Feb-16, Feb-23 March-2, March-9, and March-16) the package-2 of MCQ'S and one mark questions should be practiced along with the chapterwise revision.

**THANK YOU**  
**All the Best.**

## MODEL-1

1. Solve graphically  $x+y=10$  and  $x-y=4$ .
2. Draw a triangle ABC with  $BC=6\text{cm}$ ,  $AB=5\text{cm}$  and  $\angle ABC=60^\circ$ . Then construct a triangle whose sides are  $\frac{3}{4}$  of the corresponding sides of the triangle ABC.
3. Draw the Ogive for the following data

Daily income	100-120	120-140	140-160	160-180	180-200
No of workers	12	14	8	6	10

4. Construct a pair of tangents to a circle of radius 4cm which are inclined to each other at an angle of  $60^\circ$ .
5. State and prove "Pythagorous theorem".
6. Prove that "The tangent at any point of contact of a circle is perpendicular to the radius through the point of contact".
7. Find the distance between the points  $(-5,7)$  and  $(-1,3)$ .
8. Using the formula find the roots of quadratic equation  $2x^2-7x+3$ .
9. Find the HCF of 84 and 105 using Euclid's division algorithm.
10. Divide  $p(x)=x^3-3x^2+5x-3$  by  $g(x)=x^2-2$  and find the quotient and remainder.
11. A die is thrown once, find the probability of getting a number lying between 2 and 6.
12. Prove that  $6+\sqrt{2}$  is irrational.
13. Find the zeroes of the polynomial  $x^2-7x+10$ .
14. Solve for x and y of  $2x+y=6$  and  $2x-y=2$ .

## MODEL-2

1. Solve graphically  $2x+y-6=0$  and  $4x-2y-4=0$
2. Construct a  $\Delta ABC$  with sides  $BC=7\text{cm}$   $\angle B = 45^\circ$   $\angle A=105^\circ$ . Then construct another triangle whose sides are  $\frac{3}{4}$  times the corresponding sides of the  $\Delta ABC$ .

3. During the medical check up of 35 students of a class their recorded as follows. Draw Ogive for the given data .

No of students	50	3	5	9	14	28	32	35
Weight in kg	38	40	42	44	46	48	50	42

4. Draw a circle of radius 4cm from a point 6cm away to the circle. Construct a pair of tangents to the circle and measure their length.
5. Prove that “If a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, the other two sides are divided in the same ratio”.
6. Prove that “The lengths of two tangents drawn from an external point to a circle are equal”.
7. Find the distance between the ogive and a point (8,6).
8. Find the roots of quadratic equation  $2x^2+5x+3=0$  using the formula.
9. Find the HCF of 420 and 130 using Euclid’s division algorithm.
10. Find the quotient and remainder when  $4x^3+2x^2+5x-6$  is divided by  $2x^2+3x+1$ .
11. Prove that  $3-\sqrt{5}$  is an irrational number.
12. Two players Sangeetha and Reshma play a tennis match. It is known that the probability of Sangeetha winning the match is 0.62. What is the probability of Reshma winning the match.
13. Find the zeros of the polynomial  $x^2-7x+12$ .
14. Find ‘x’ and ‘y’ ,  $3x-y=3$  and  $9x-3=9$ .

### MODEL-3

1. Solve graphically  $2x+y-6=0$  and  $2x-y-2=0$ .
2. Construct a  $\Delta ABC$  with sides  $AB=6\text{cm}$   $\angle A = 30^\circ$   $\angle B=60^\circ$  .Then construct another  $\Delta A^1B^1C^1$  similar to  $\Delta ABC$  whose sides are  $\frac{4}{3}$  of the corresponding sides of the  $\Delta ABC$ .
3. Draw more than Ogive for the following

Marks	0-10	10-20	20-30	30-40	40-50	50-60
No of students	5	8	6	10	6	6

4. Construct a pair of tangents to a circle of radius 3.5cm from an external point 'P' which is 10cm away from the centre and measure their lengths.
5. Prove that "In a right angle triangle the square of the hypotenuse is equal to the sum of the squares on the other two sides" .
6. Prove that "The tangent at any point of the contact of a circle is perpendicular to the radius through the point of contact".
7. Find the distance between (8,3)and(8,-7).
8. By using the formula find the roots of  $x^2-7x=5$ .
9. Find theHCF of 135 and 225 using Euclids division Algorithm.
- 10.Find the sum and product of zeroes of polynomials  $2x^2-8x+6$ .
- 11.One card is drawn from a well shuffled deck of 52 cards ,calculate the probability that the card will be an ace.
- 12.Prove that  $5-\sqrt{3}$  is an irrational number.
- 13.Find the zeroes of the polynomial  $x^2-2x-8$ .
- 14.Solve for x and y,  $3x+2y=11$  and  $2x-3y=3$ .

### **MODEL-4**

1. Solve graphically  $x-y+1=0$  and  $3x+2y-12=0$ .
2. Construct a triangle with sides 4cm, 5cm and 6cm then construct another triangle similar to it, whose sides are  $\frac{2}{3}$  of the corresponding sides of the first triangle.
3. Draw more than type Ogive

height	120-130	130-140	140-150	150-160	160-170	170-180
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No of students	5	10	12	16	4	10

4. Construct a pair of tangents to a circle of radius 3.5cm such that angle between the radii is  $120^\circ$ .
5. Prove that “if two angles of one triangle are respectively equal to two angles of another triangle then the two triangles are similar.
6. Prove that “ The lengths of two tangents drawn from an external point to a circle are equal.”
7. Find the distance between (1,-3) and (-4,7).
8. Using formula find the roots of quadratic equation  $2x^2-3x+1=0$ .
9. Find the HCF of 28 and 126 by prime factor method.
10. Suppose we throw a die once what is the probability of getting a number greater than 4.
11. Prove that  $\sqrt{3} - 2$  is an irrational number.
12. Find the zeroes of the polynomial  $6x^2-7x-3$ .
13. The sum of two numbers is 35 and the difference is 7 then find the numbers.
14. Find the sum and product of zeroes of the polynomial  $x^2+7x+10$ .

### MODEL-5

1. Solve graphically  $x+y=14$  and  $x-y=4$ .
2. Construct a triangle with sides 5cm, 6cm and 7cm. Then construct another triangle similar to it, whose sides are  $\frac{7}{5}$  of the corresponding sides of the first triangle.
3. Draw more than Ogive for the following frequency distribution

Marks	0-10	10-20	20-30	30-40	40-50	50-60
No of students	5	8	6	10	6	6

4. Construct a tangent to a circle of radius 3.5cm at a point P on it.
5. State and prove Pythagoras theorem.

6. Prove that “The tangent at any point of contact of a circle of contact of a circle is perpendicular to the radius through the point of contact”.
7. Find the distance between the points (-4,5) and (-12,3).
8. Using the formula find the roots of quadratic equation  $x^2 - 7x + 12$
9. Prove that  $\sqrt{2}$  is an irrational number.
10. Find the HCF of 336 and 68 by prime factor method.
11. Find the zeroes of the polynomial  $x^2 - x - 12$ .
12. Solve  $x + y = 14$  and  $x - y = 4$ .
13. Find the sum and product of zeroes of the polynomials  $6x^2 - 3 - 7x$ .
14. Find the probability of getting a head when a coin is tossed once.

## MODEL-6

1. Solve graphically  $3x + 2y = 13$  and  $4x - 3y = 6$ .
2. Draw a triangle ABC with sides  $BC = 6\text{cm}$ ,  $AB = 5\text{cm}$  and  $\angle ABC = 60^\circ$ . Then construct another triangle whose sides are  $\frac{3}{4}$  times the corresponding sides of the  $\Delta ABC$ .
3. Draw less than ogive for the given frequency distribution

class	20-30	30-40	40-50	50-60	60-70	70-80	80-90
No of students	10	15	25	8	12	25	6

4. Draw a line segment  $AB = 7\text{cm}$  and divide it internally in the ratio 3:2.
5. Prove that “The ratio of the area of two similar triangles is equal to the square of the ratio of their corresponding sides”.
6. Prove that “The lengths of two tangents drawn from an external point to a circle are equal”.
7. Find the distance between the point (6,5) and (4,4).

8. Find the roots of quadratic equation  $x^2-4x+2=0$  using the formula.
9. Find the HCF of 135 and 345 using Euclid's division algorithm.
10. Divide  $3x^2-x^3-3x+5$  by  $x-1-x^2$  and write Quotient and remainder.
11. Prove that  $\sqrt{3} + 2$  is a irrational number.
12. Find the zeroes of the polynomial  $2x^2-3x-5$ .
13. Solve for x and y,  $3x+4y-10$  and  $2x-2y-2$ .