A**arambh CLASSES**

**Class X**

**MATHS**

**PREVIOUS YEAR BOARD QUESTIONS**

**2 marks questions :**

1. Find the least number which when divided by 12,16 and 24 leaves remainder 7 in each case .
2. Show that 5 +2 is an irrational number ,where is given to be an irrational number .
3. 3 bells ring at an interval of 4,7 and 14 minutes .All three bells rang at 6 am ,when the three bells will ring together next ?
4. If one zero of the polynomial p(x) = 6x2 +37x –(k-2) is reciprocal of the other ,then find the value of k.
5. If and are zeroes of 4x +3x+7 ,then find the value of .
6. Find the zeroes of the quadratic polynomial 6x-13x+6 and verify the relation between the zeroes and its coefficients .
7. Zeroes of a quadratic polynomial are in the ratio 4:5 and their sum is 27 . Find the product of zeroes of the polynomial .
8. Find whether the lines representing the following pair of linear equations intersect at a point are parallel or coincident :

2x+y+3=0 ,4x+2y+6=0

7. Using graphical method ,find whether pair of equations x=0 and y=-3 is consistent or not .

8. The larger of two supplementary angles exceeds the smaller by 18.Find the angles .

9. The sum of the numerator and the denominator of a fraction is 18.If the denominator is increased by 2 ,the fraction reduces to .Find the fraction .

10. If 49x+51y =499 ,51x+49y =501 ,then find the values of x and y .

11. Find the value of p,for which one root of the quadratic equation px-14x+8 =0 is 6 times the othe other .

12. Solve the qudratic equation for x : x-2ax -(4b-a)=0

13. If Ritu were younger by 5 years than what she really is ,then the square of her age would have been 11 more than five times her present age .What is her present age ?

14.Which term of the AP ,-3,,…..is ?

15. If the 9th term of an AP is zero ,then show that its 29th term is double of its 19th term .

16. In an AP if Sn= n(4n+1) ,then find the AP.

17. In figure ,DEAC and DC AP ,prove that .

18. In the given figure ,XZ is parallel to BC .AZ=3 cm ,ZC =2 cm ,BM =3 cm and MC = 5cm .fInd the length of XY.

19. A vertical pole of length 19 m casts a shadow 57 m long on the ground and at the same time a tower casts a shadow 51 m long .Find the height of the tower.

20. Sides AB,BC and median AD of a ABC are respectively proportional to sides PQ,QR and median PM of PQR .Show that ABC PQR .

21. If the distance of P(x,y) from A (5,1) and B (-1,5) are equal ,then prove that 3x=2y .

22. If A (4,3) ,B (-1,y) and C (3,4 )are the vertices of a right triangle ABC ,right angled at A ,then find the value of y .

23. Find the ratio in which the segment joining th epoints (1,-3) and (4,5) is divided by x-axis ?Also find the coordinates of this point on x-axis .

24. The point R divides the line segment AB,where A(-4,0) and B (0,6) such that AR =AB.Find the coordinates of R.

25. Evaluate 2 sec+3cosec-2sin cosif =45.

26. If sin-cos =0,then find the value of sin+cos.

27. Evaluate :

28. If is an acute angle and sin=cos,find the value of tan+cot-2 .

29. If sin+cos = ,then find the value of sin.cos.

30. If sin= and cot = ,then find the value of cosec +cosec.