**Aarambh classes**

**Class VIII(CBSE)**

**Maths sample paper**

**Time : 2 hours M.Marks :100**

**MCQ’S : (1X30=30)**

1. Square root of 6.25 is
2. 2.5 (b)25 (c) 2.05 (d) 0.25
3. Square of an odd number is :
4. even (b)odd (c) can be anything less than 1
5. cube root of -0.001331 is
6. -101 (b)-0.11 (c) 21 (d) -21
7. To find 101 x103 ,which identity will you use ?
8. (a+b)(a-b) (b)(a+b)2 (c) (x+a)(x+b) (d) (a-b)2
9. A polyhedron has 5 faces and 9 edges .The number of vertices is :
10. 6 (b)4 (c) 14 (d) 8
11. If the sum of all the edges of a cube is 36 cm ,then the volume of that cube is :
12. 9 cm3 (b)27 cm3 (c) 219 cm3 (d) 729 cm3
13. 1 m3 is equal to

(a)1000cm3 (b)100 cm3 (c) 1000000 cm3 (d) 10000 cm3

1. A train is moving at 75 km/h .How far will it go in 20 minutes ?

(a)2.5 (b)25 (c) 2.05 (d) 0.25

1. Which of these is not a factor of -16 xy2
2. -8x2 (b)-4y2 (c) 2x (d) 16xy
3. Exterior angle of a polygon is 240.The polygon has
4. 2.5 (b)25 (c) 2.05 (d) 0.25
5. Square root of 144/625 is

(a)2/5 (b) 2/25 (c) 12/25 (d) 12/5

1. What is the unit digit of the cube root of 13824 ?
2. 2 (b)8 (c) 4 (d) 6
3. Product of -3a and 8-2a is
4. -11a +6a2 (b)11a +5a (c) 24 -6a2 (d) -24a+6a2
5. A polyhedron has 20 faces and 12 vertices .The number of edges is
6. 10 (b)20 (c) 30 (d) 32
7. Three cubes of side 2 cm are joined side to side .Volume of the cuboid formed is
8. 8 cm3 (b)64 cm3 (c) 24 cm3 (d) 512 cm3
9. A person can build a well in 20 days .What fraction of the wall will be completed in 4 days ?
10. 1/2 (b)1/8 (c) 1/5 (d) 1/4
11. The quotient of 3 (p2-9) divided by p+3 is
12. 3(p-3) (b) p-3 (c) 3(p+3) (d) 3p
13. The sum of interior angles of a polygon of 5 sides is
14. 3600 (b) 5400 (c) 1800 (d) 900
15. Diagonals of a rhombus are 12 cm and 16 cm .Each side of the rhombus is
16. 10 cm (b) 14 cm (c) 20 cm (d) 28 cm
17. The unit digit of the square of a number ending in 9 is always
18. 1 (b) 9 (c) 3 (d) 0
19. Cube of which of these numbers will be odd ?
20. 12 (b) 27 (c) 128 (d) 150
21. The value of 2a2 -3a +7 for a=-2 is
22. 9 (b)21 (c) 17 (d) 11
23. The surface area of a cuboid of size 5 cm x 3 cm x 2 cm is
24. 62 cm (b) 66 cm2 (c) 64 cm2 (d) 62 cm2
25. Train fare for a journey of 300 km is Rs 540 .The fare for a distance of 450 km is
26. Rs 710 (b)Rs 810 (c ) Rs 900 (d) Rs 1080
27. 12 men can complete a job in 20 days .How many men will complete the job in 15 days ?
28. 15 men (b) 12 men (c) 16 men (d) 20 men
29. Factors of b2 -2b-48 are
30. (b+4)(b+12) (b) (b-3) (b+16) (c) (b+6)(b-8) (d) (b-6)(b+8)
31. What is the sum of three consecutive numbers, the smallest being x ?
32. 3x+3 (b)x+3 (c) 3x+2 (d) 2x+3
33. The root of equation 2x+ =0 is
34. (b) (c) (d)
35. If x is one part of 35,the other part is
36. X-35 (b)35-X (c) X+35 (d) 35/X
37. Square root of 0.09 is
38. 0.3 (b)0.03 (c) 0.81 (d) 8.1

**VSA (6X2=12)**

1. Factorise : ax+bx-ay-by
2. Factorise : 9x2 -49
3. Find the area of a quadrilateral ABCD in which diagonal BD =12 cm and perpendicular from vertices A and C measures 8 cm and 4 cm respectively.
4. If 7 boys can complete a job in 21 days ,how long will 21 boys take to complete the job.
5. A solid has 40 faces and 60 edges .How many vertices does it have ?
6. Solve :

**SA (6X3=18)**

1. Find the least number of four digits which is a perfect square .
2. Find the smallest number that should be multiplied(or divided ) to 3136 to make it a perfect cube .
3. If x+ =8 ,find .
4. Factorise : x4 -81
5. The area of a trapezium is 34 cm2 and the length of one of the parallel sides is 10 cm and its height is 4 cm.Find the length of the other parallel side .
6. Lengths of two sides of a parallelogram are in the ratio 3:4 .Find the sides of a parallelogram if its perimeter is 28 cm .

**LA (5X4=20)**

1. **Find the greatest number of six digits which is a perfect square.**
2. Simplify : (i)(p+q)(p-q) -p2-2pq-q2

(ii) (ab+bc)2 -2ab2c

1. A tap can fill up an empty tank in 5 hours whereas it can be emptied by a pipe in 6 hours .How long will it take to fill the empty tank if both the tap and the pipe are opened together ?
2. Find the area of the given figure :
3. The sum of the digits of a two digit number is 7.If the number formed by reversing its digits is less than the original number by 9,find the original number .