Cubes and Cube Roots

<1M>
1.Which of the following is a perfect cube.
(A) 100   (B) 68600   (C) 343000   (D) 400

2.What is smallest number by which 392 must be multiplied so that the product is a perfect cube.
(A) 7   (B) 2   (C) 5   (D) 3

3.Find the cube of 18.

4.Find the one's digit of the cube of each of the following
(a) 1024   (b) 77

5.Find the cube root of 512.

6.Evaluate $(0.8)^3$

7.Cube of 6 is
(A) 36   (B) 216   (C) 96   (D) 26

8.2^3 can be written as sum of consecutive odd numbers as
(A) 3 + 5   (B) 1 + 3 + 3 +1   (C) 1 + 5 +3   (D) 4 + 3 + 1

9.Prime factors of 216 are:

10.The cube of every even number is
(A) Odd   (B) Even   (C) Neither odd nor even   (D) Both

11.Which one of the following is the cube of an odd number.
(A) 64   (B) 343   (C) 8000   (D) 1728

12.The cube of a number is that number raise to the power.
(A) 6   (B) 2   (C) 3   (D) 1

13.The cube root of a number 'x' is the number whose cube is:
(A) 1   (B) x   (C) 0   (D) None

14.In the prime factorization of any number each factor appears three times, then the number is a:
(A) Perfect cube   (B) Even   (C) Odd   (D) None

15.A perfect cube number does not end with ------------------ zeros.
(A) Two   (B) Three   (C) Six   (D) Nine

16.6^3 is expressed as the sum of consecutive odd numbers as:
(A) 23+25+27+29+31   (B) 31+33+35+37+39+41
(C) 13+15 +17+19+21+23   (D) 21+23+25+27+29

17.The cube of149 one's digit is:
(A) 2   (B) 9   (C) 3   (D) 1

18.Which of the following is a perfect cube:
(A) 400   (B) 8000   (C) 10000   (D) 100

19. The value of $7^3 - 6^3$ is:
(A) 127   (B) 13   (C) 243   (D) 143

20. The cube of 53 one's digit is
(A) 4   (B) 6   (C) 9   (D) 27

21. How many times each prime factor appears in its cubes
(A) 1   (B) 2   (C) 3   (D) 4

22. Using the pattern given in book, the value of $12^3 - 11^3$ is
(A) 397   (B) 227   (C) 427   (D) 87

23. Figures which have 3 dimensions are known as
(A) Plane figures   (B) Solid figures   (C) Two dimension figures   (D) None

24. The smallest number which can be expressed as a sum of two cubes in two different ways is
(A) 1408   (B) 1178   (C) 1729   (D) 1658

25. Cube root of 4913 is
(A) 12   (B) 17   (C) 13   (D) 27

26. Which one of the following is a perfect cube.
(A) 216   (B) 100   (C) 128   (D) 8130

27. The unit digit of the cube of 729 is
(A) 1   (B) 2   (C) 9   (D) 3

28. The volume of a cuboid of sides 5 cm, 3 cm, 2 cm is
(A) 30 cm^3 (B) 20 cm^3 (C) 40 cm^3 (D) 10 cm^3

29. The cube of 5022 one's digit is
(A) 8   (B) 9   (C) 4   (D) 6

<2M>

30. Find the smallest number by which 704 must be divided to obtain a perfect cube.

31. Find the cube root of 4096 by primefactorization

32. Find the cube root of 2197 by estimation

33. Show that 189 is not a perfect cube.

34. Find the number whose cube is 9261.

35. The smallest number by which 100 must be multiplied to obtained a perfect cube.
(A) 10   (B) 20   (C) 40   (D) 30

36. The smallest number by which 192 must be divided to obtain a perfect cube is
(A) 2   (B) 3   (C) 4   (D) 1

37. Find the cube of 25

38.Find the cube root of 1.331.

39.Evaluate cube root of 216×1728

40.Find the cube root of 5832 by primefactorisation

41.Find the cube root of 5832.

42.Evaluate (i) cube root of $125 \times 27 = 3 \times$ ---------, (ii) cube root of $8 \times$ ----- $= 8$

<4M>

43.Find the cube root of 91125.

44.The smallest number by which 1188 should be divided to make is a perfect cube is

45.Find the smallest number by which 1600 must be divided so that the quotient is a perfect cube, further find its cube root.

46.Sheetal makes a cuboid of plastics of sides 5 cm, 2 cm, 5cm. How many such cuboids will be need to form a cube?

47.Find the smallest number by which 12500 must be multiplied so that the product is a perfect cube.

48.By prime factorization method, the cube root of 13824 is
(A) 34   (B) 24   (C) 14   (D) 34

<6M>

49.Find the smallest number which when multiplied with 3600 will make the product a perfect cube. Further find the cube root of the product.

50.The three numbers are in the ration 2:3:4. The sum of their cubes is 33957. Find the numbers.

51.The volume of a cube in 9261000 m^3. Find the side of the cube.

52.(i)   Three numbers are in the ratio 1:2:3. The sum of their cubes is 98784. Find the numbers.

53.(i)   Divide the number 26244 by the smallest so that the quotient is a perfect cube. Also find the cube root of number obtained.