CHAPTER-4

CUBES AND CUBE ROOTS

QUESTION BANK

1. Find the cube of :
   (i) 7
   (ii) 11
   (iii) 16
   (iv) 23
   (v) 31
   (vi) 42
   (vii) 54

2. Find which of the following are perfect cubes :
   (i) 243
   (ii) 588
   (iii) 1331
   (iv) 24000
   (v) 1728
   (vi) 1938

3. Find the cubes of :
   (i) 2.1
   (ii) 0.4
   (iii) 1.6
   (iv) 2.5
   (v) 0.12
   (vi) 0.02
   (vii) 0.8

4. Find the cubes of :
   (i) -3
   (ii) -7
   (iii) -12
   (iv) -18
   (v) -25
   (vi) -30
   (vii) -50

5. Which of the following are cubes of:
   (i) an even number
   (ii) an odd number
   216, 729, 3375, 8000, 125, 343, 4096 and 9261.

6. Find the least number by which 1323 must be multiplied so that the product is a perfect cube.

7. Find the smallest number by which 8768 must be divided so that the quotient is a perfect

8. Find the smallest number by which 27783 be multiplied to get a perfect square number.

9. With what least number must 8640 be divided so that the quotient is a perfect cube?

10. Which is the smallest number that must be multiplied to 77175 to make it a perfect cube?

11. Find the cube-roots of :
   (i) 64
   (ii) 343
   (iii) 729
   (iv) 1728
   (v) 9261
   (vi) 4096
   (vii) 8000
   (viii) 3375

12. Find the cube-roots of :
   (i) 27/64
   (ii) 125/216
   (iii) 343/512
   (iv) 64 x 729
   (v) 64 x 27
   (vi) 729 x 8000
   (vii) 3375 x 512

13. Find the cube-roots of :
   (i) -216
   (ii) -512
   (iii) -1331
   (iv) −27/125
   (v) −64/343

(vi) −512/343
(vii) -2197
(viii) -5832
(ix) -2744000

14. Find the smallest number by which 26244 may be divided so that the quotient is a perfect cube.

15. Find the cube-roots of :
(i) 2.744
(ii) 9.261
(iii) 0.000027
(iv) -0.512
(v) -15.625
(vi) -125 x 1000

16. What is the least number by which 30375 should be multiplied to get a perfect cube?

17. Find the cube-roots of :
(i) 700 x 2 x 49 x 5
(ii) -216 x 1728
(iii) -64 x -125
(iv) −27/343
(v) 729/−1331
(vi) 250.047
(vii) -175616

18. Is 343 or 243 a perfect cube

19. Find the cube root of 8000.

20. Find the cube root of 13824.

21. Is 292 a perfect cube? If not find the smallest natural number by which it must be multiplied so that the product is a perfect cube.

22. Show that 1728 is a perfect cube.

23. What is the number whose cube is 216?

24. Find the smallest number by which 68600 must be multiplied to get a perfect cube.

25. Which smallest natural number should divide 1188 so that the quotient is a perfect cube?

26. Is the cube of 4913 an odd number? Why?

27. Is the cube of 132651 an even number? Why?

28. Which of the following numbers is a perfect cube?
    (a) 125
    (b) 36
    (c) 75
    (d) 100.

29. Which of the following numbers is a cube number?
    (a) 1000
    (b) 400
    (c) 100
    (d) 600.

30. Which of the following numbers is not a perfect cube?
    (a) 1331
    (b) 512
    (c) 343
    (d) 100.

31. Which of the following numbers is not a cube number?
    (a) 10000
    (b) 3125
    (c) 64
    (d) 729.

32. The cube of an odd natural number is
(a) even
(b) odd
(c) may be even, may be odd
(d) prime number.

33. The cube of an even natural number is
(a) even
(b) odd
(c) may be even, may be odd
(d) prime number.

34. The cube of an even natural number is
(a) even
(b) odd
(c) may be even, may be odd
(d) prime number.

35. The one's digit of the cube of the number 242 is
(a) 2
(b) 4
(c) 6
(d) 8.

36. The one's digit of the cube of the number 123 is
(a) 3
(b) 6
(c) 9
(d) 7.

37. The one's digit of the cube of the number 144 is
(a) 1
(b) 2
(c) 3
(d) 4.

38. The one's digit of the cube of the number 50 is

(a) 1
(b) 0
(c) 5
(d) 4.

39. The one's digit of the cube of the number 326 is
(a) 2
(b) 3
(c) 6
(d) 4.

40. The one's digit of the cube of the number 325 is
(a) 2
(b) 5
(c) 3
(d) 6.

41. The one's digit of the cube of the number 347 is
(a) 3
(b) 4
(c) 7
(d) 1.

42. The one's digit of the cube of the number 68 is
(a) 1
(b) 2
(c) 6
(d) 8.

43. The one's digit of the cube of the number 249 is
(a) 2
(b) 4
(c) 9
(d) 1.

44. What is the one's digit in the cube root of the cube number 1331?
(a) 1
(b) 2

(c) 3
(d) 4

45. What is the one's digit in the cube root of the cube number 1000000?
(a) 0
(b) 1
(c) 2
(d) 9.

46. What is the one's digit in the cube root of the cube number 1728?
(a) 1
(b) 2
(c) 3
(d) 9.

47. What is the one's digit in the cube root of the cube number 2197?
(a) 1
(b) 2
(c) 3
(d) 7.

48. What is the one's digit in the cube root of the cube number 2744?
(a) 1
(b) 2
(c) 3
(d) 4.

49. What is the one's digit in the cube root of the cube number 3375?
(a) 2
(b) 3
(c) 5
(d) 4.

50. What is the one's digit in the cube root of the cube number 4096?
(a) 2
(b) 6
(c) 4

51. What is the one's digit in the cube root of the cube number 4913?
    (a) 7
    (b) 9
    (c) 3
    (d) 6.

52. What is the one's digit in the cube root of the cube number 5832?
    (a) 2
    (b) 4
    (c) 6
    (d) 8.

53. What is the one's digit in the cube root of the cube number 6859?
    (a) 7
    (b) 8
    (c) 9
    (d) 6.

54. What is the one's digit in the cube root of the cube number 8000?
    (a) 0
    (b) 2
    (c) 4
    (d) 8.

55. The number of zeroes at the end of the cube of the number 20 is
    (a) 1
    (b) 2
    (c) 3
    (d) 6.

56. The number of zeroes at the end of the cube root of the cube number 1000 is
    (a) 1
    (b) 2
    (c) 3
    (d) 4.

57. The number of zeroes at the end of the cube of the number 100 is

(a) 1
(b) 2
(c) 4
(d) 6.

58. The number of zeroes at the end of the cube root of the cube number 8000000 is
(a) 1
(b) 2
(c) 3
(d) 6.

59. Find the smallest number by which the number 108 must be multiplied to obtain a perfect cube.
(a) 2
(b) 3
(c) 4
(d) 5.

60. Find the smallest number by which the number 250 must be divided to obtain a perfect cube.
(o) 2
(b) 3
(c) 4
(d) 5.

61. Find the smallest number by which the number 72 must be multiplied to obtain a perfect cube.
(a) 2
(b) 3
(c) 4
(d) 6.

62. Find the smallest number by which the number 375 must be divided to obtain a perfect cube.
(a) 2
(b) 3
(c) 5
(d) 4.

63. Find the smallest number by which the number 100 must be multiplied to obtain a perfect cube.
(a) 5
(b) 2
(c) 4
(d) 10.

64. Find the smallest number by which the number 10000 must be divided to obtain a perfect cube.
(a) 2
(b) 5
(c) 10
(d) 100

65. Find the smallest number by which the number 200 must be multiplied to obtain a perfect cube.
(a) 2
(b) 10
(c) 5
(d) 100.

66. Find the smallest number by which the number 625 must be divided to obtain a perfect cube.
(a) 3
(b) 5
(c) 25
(d) 125.

67. Find the smallest number by which the number 128 must be multiplied to obtain a perfect cube.
(a) 2
(b)4
(c) 3
(d) 8.

68. Find the smallest number by which the number 256 must be divided to obtain a perfect cube.
(a) 2

(b) 4
(c) 8
(d) 16.

69. Find the smallest number by which the number 36 must be multiphed to obtain a perfect cube.
(a) 6
(b) 2
(c) 3
(d) 4.

70. Find the smallest number by which the number 1296 must be divided to obtain a perfect cube.
(a) 6
(b) 2
(c) 4
(d) 3.

71. Find the smallest number by which the number 392 must be multiplied to obtain a perfect cube.
(a) 3
(b) 5
(c) 7
(d) 6.

72. Find the smallest number by which the number 2401 must be divided to obtain a perfect cube.
(a) 7
(b) 6
(c) 5
(d) 9.

73. Find the smallest number by which the number 121 must be multiplied to obtain a perfect cube.
(a) 7
(b) 9
(c) 11
(d) 5.

74. Find the smallest number by which the number 88 must be divided to obtain a perfect cube.

(a) 11

(b) 5

(c) 7

(d) 9.