

CONCEPT APPLICATION LEVEL - II

SECTION - A

• **FILL IN THE BLANKS :**

- Q.1 Is 64000 a perfect cube? _____
- Q.2 The smallest natural number by which 9 must be multiplied to get a perfect cube is _____
- Q.3 The cube root of (-8000) is _____ .
- Q.4 The cube root of $-(8 \times 27)$ is _____ .
- Q.5 The cube root of (27×64) is _____
- Q.6 The value of $\sqrt[3]{4^3 \times 6^3}$ is _____
- Q.7 The value of $\sqrt[3]{\frac{-8}{125}}$ is _____
- Q.8 $\sqrt[3]{\frac{3.43}{10}} =$ _____ .
- Q.9 $\sqrt[3]{a^6 \times b^9} =$ _____ .
- Q.10 $\sqrt[3]{0.125} + \sqrt[3]{0.729} =$ _____ .
- Q.11 $\sqrt[3]{-m^6} =$ _____ .

SECTION - B

• **Mark true (T) or false (F) for the following statements.**

- Q.1 If n is a multiple of 2, then n^3 is also a multiple of 2.
- Q.2 If n is not a multiple of 2, then n^3 is also not a multiple of 2.
- Q.3 If n ends in 3, then n^3 ends in 7.
- Q.4 If n ends in 5, then n^3 ends in 25.
- Q.5 A perfect cube can end with even number of zeroes.

SECTION - C

• **Multiple choice question with one correct answers**

- Q.1 Cube of an odd natural number is
 (A) an even natural number (B) an odd natural number
 (C) a prime number (D) none of these
- Q.2 Cube of an even natural number is
 (A) an even natural number (B) an odd natural number
 (C) a prime number (D) none of these

- Q.3 Cube root of a negative number is
(A) a negative number (B) a positive number
(C) sometimes negative, sometimes positive (D) none of these
- Q.4 Cube root of the product of two negative numbers is
(A) a negative number (B) a positive number
(C) sometimes negative, sometimes positive (D) none of these
- Q.5 For a non-zero integer x , x^3 is
(A) always less than x^2
(B) always greater than x^2
(C) sometimes less and sometimes greater than x^2
(D) none of these
- Q.6 What is the value of $\sqrt[3]{0.000064}$?
(A) 0.4 (B) 0.08 (C) 0.04 (D) 0.16
- Q.7 What is the value of $\sqrt[3]{\sqrt{441} + \sqrt{16} + \sqrt{4}}$
(A) 3 (B) 5 (C) 7 (D) None
- Q.8 The smallest number by which 3600 must be multiplied to make it a perfect cube
(A) 40 (B) 60 (C) 20 (D) 15
- Q.9 $\sqrt[3]{-1} = ?$
(A) -1 (B) 1 (C) -1/3 (D) None of these
- Q.10 $\sqrt[3]{\frac{72.9}{0.4096}}$ is equal to
(A) 0.5625 (B) 5.625 (C) 182 (D) 13.6
- Q.11 The digit in the unit's place in the cube root of 21952 is
(A) 8 (B) 6 (C) 4 (D) 2
- Q.12 If the cube root of 175616 is 56, then the value of $\sqrt[3]{175.616} + \sqrt[3]{0.175616} + \sqrt[3]{0.000175616}$ is equal to
(A) 0.168 (B) 62 - 16 (C) 6.216 (D) 6.116
- Q.13 $\sqrt{\sqrt[3]{0.004096}}$ is equal to
(A) 4 (B) 0.4 (C) 0.04 (D) 0.004
- Q.14 The value of $\sqrt[3]{(-343) \times (512)}$ is
(A) 56 (B) -56 (C) 65 (D) -65

- Q.15 The volumes of two cubes are in the ratio of 343 : 1331, the ratio of their edges is
(A) 7 : 10 (B) 7 : 11 (C) 7 : 12 (D) None of these
- Q.16 The smallest natural number by which 32 must be multiplied to get a perfect cube is
(A) 16 (B) 4 (C) 2 (D) 8
- Q.17 The smallest natural number by which 32 must be divided to get a perfect cube is
(A) 16 (B) 4 (C) 2 (D) 8
- Q.18 $\sqrt[3]{8 \times 64} = ?$
(A) 12 (B) 16 (C) 8 (D) 24
- Q.19 If the volume of a cube is 512 cm^3 , then the length of its side is
(A) 8 cm (B) 9 cm (C) 7 cm (D) 6 cm
- Q.20 The cube root of $\sqrt[3]{-125}$ is
(A) 5 (B) -5 (C) 25 (D) None of these
- Q.21 The value of $\sqrt[3]{-2^3}$ is
(A) -2^3 (B) -2 (C) 2^3 (D) 2
- Q.22 Which of the following statements is true?
(A) Cube of an even number is odd
(B) Cube of a number ending with 3 ends with 9.
(C) Cube of a number ending with 0 has three 0's at its extreme right
(D) Cube of a 2-digit number may be a three digit number
- Q.23 The cube of 70 is
(A) 49000 (B) 490000 (C) 343000 (D) 34300
- Q.24 The cube of (-5) is
(A) 25 (B) -125 (C) 125 (D) -25
- Q.25 The cube of $\left(2 - \frac{1}{3}\right)$ is
(A) $8 - \frac{1}{27}$ (B) $\frac{125}{27}$ (C) $\frac{25}{9}$ (D) $\frac{343}{27}$
- Q.26 The cube root of (-0.000001) is
(A) -0.1 (B) -0.01 (C) -0.001 (D) -0.0001
- Q.27 The value of $\sqrt[3]{343} \times \sqrt[3]{-27}$ is
(A) 21 (B) -19 (C) 19 (D) -21

$$Q.28 \quad \sqrt[3]{\frac{-a^6 \times b^3 \times c^{21}}{c^9 \times a^{12}}} =$$

(A) $\frac{-bc^3}{a^2}$

(B) $\frac{bc^4}{a^2}$

(C) $\frac{-ab^4}{c^2}$

(D) $\frac{-bc^4}{a^2}$

Q.29 The cube of the number p is 16 times the number. Then find p where $p \neq 0$ and $p \neq -4$.

(A) 4

(B) 3

(C) 8

(D) 2

Q.30 The cube of a number x is nine times of x, then find x, $x \neq 0$ and $x \neq -3$

(A) 8

(B) 2

(C) 4

(D) 3

Q.31 The digit in the units place for the cube of the number 1234568 is _____.

(A) 8

(B) 2

(C) 4

(D) 6

Q.32 Which of the following is not a perfect square?

(A) 16384

(B) 23857

(C) 18496

(D) 11025

$$Q.33 \quad \sqrt[3]{\frac{3^6 \times 4^3 \times 2^6}{8^9 \times 2^3}} = \text{_____}.$$

(A) $\frac{3}{8}$

(B) $\frac{9}{8}$

(C) $\frac{3}{64}$

(D) $\frac{9}{64}$

Q.34 The cube root of the number 10648 is _____.

(A) 42

(B) 38

(C) 28

(D) 22

Q.35 The cube of a number ending in 3, ends in _____.

(A) 3

(B) 7

(C) 9

(D) Cannot say

Q.36 Find the value of $\sqrt[3]{6075} \times \sqrt[3]{88935} \times \sqrt[3]{9625}$.

(A) 17355

(B) 17255

(C) 17315

(D) 17325