[40]

*** Choose The Right Answer From The Given Options.[1 Marks Each]**

1. Tick (✓) the correct answer the following:
   The value of $(3^{-1} + 4^{-1})^{-1} \div 5^{-1}$ is:
   (A) $\frac{7}{10}$ (B) $\frac{60}{7}$ (C) $\frac{7}{5}$ (D) $\frac{7}{15}$

2. Thickness of an aluminum sheet is 0.982mm. Express it into standard form:
   (A) 9.82×10^{-4} (B) 98.2×10^{-2} (C) 9.82×10^{-1} (D) 982×10^{-3}

3. Simplify $2^7 \times \left(\frac{1}{8}\right)$ and write the answer in exponent form:
   (A) 2^{24} (B) 2^4 (C) 2^3 (D) 2^5

4. If $(-3)^{m+1} \times (-3)^5 = (-3)^7$, then the value of m is:
   (A) 5 (B) 7 (C) 1 (D) 3

5. 384467000 is equal to:
   (A) 3.84467×10^8 (B) 3.84467×10^3 (C) 3.84467×10^7 (D) 3.84467×10^6

6. A group of students were given an assignment to collect different types of leaves. The group collected 32 types of leaves. Represent the number of leaves collected in the form of exponential expression with its base being indivisible.
   (A) 2^5 (B) 2^3 (C) 2^4 (D) None of the these

7. Tick (✓) the correct answer the following:
   The value of $\left(\frac{2}{5}\right)^{-3}$ is:
   (A) $-\frac{8}{125}$ (B) $\frac{25}{4}$ (C) $\frac{125}{8}$ (D) $-\frac{2}{5}$

8. Simplify $4^{-4} \times \left(\frac{3}{4}\right)^{-4}$ and write the answer in exponent form:
   (A) $\frac{1}{3^4}$ (B) $\frac{4^4}{3^4}$ (C) 3^4 (D) $\frac{1}{3^3}$

9. The standard form for 0.000064 is:
   (A) 64×10^4 (B) 64×10^{-4} (C) 6.4×10^5 (D) 6.4×10^{-5}

10. Tick (✓) the correct answer the following:
    If $(2^{3x-1} + 10) \div 7 = 6$, then x is equal to:
    (A) -2 (B) 0 (C) 1 (D) 2

11. Tick (✓) the correct answer the following:
    $\left(\frac{-5}{3}\right)^{-1} = ?$
    (A) $\frac{5}{3}$ (B) $\frac{3}{5}$ (C) $\frac{-3}{5}$ (D) None of these.

12. $3^m + 3^{-3} = 3^5 \Rightarrow$ m is equal to:
    (A) 1 (B) 2 (C) 3 (D) 4

13. If $\log_{10}^{7} = 0.81$ and $\log_{10}^{2} = 0.30$ then $\log_{4}^{49}$ is equal to:
    (A) 2.7 (B) 2.1 (C) 3.0 (D) 3.1

14. Which of the following is used as a form of 5.05×10^6 ?
    (A) 505000 (B) 505000000 (C) 5050000 (D) 50500000

15. $\left(\frac{2}{3}\right)^{-5} \times \left(\frac{5}{7}\right)^{-5}$ is equal to:
    (A) $\left(\frac{2}{3} \times \frac{5}{7}\right)^{-10}$ (B) $\left(\frac{2}{3} \times \frac{5}{7}\right)^{-5}$ (C) $\left(\frac{2}{3} \times \frac{5}{7}\right)^{25}$ (D) $\left(\frac{2}{3} \times \frac{5}{7}\right)^{-25}$

16. Tick (✓) the correct answer the following:
    The value of x for which $\left(\frac{7}{12}\right)^{-4} \times \left(\frac{7}{12}\right)^{3x} = \left(\frac{7}{12}\right)^{5}$, is:
    (A) -1 (B) 1 (C) 2 (D) 3

17. $(-9)^3 \div (-9)^8$ is equal to:

a. $(9)^5$
b. $(9)^{-5}$
c. $(-9)^5$
d. $(-9)^{-5}$

18. $\left(\frac{-1}{2}\right)^5 \times \left(\frac{-1}{2}\right)^3$ is equal to:
a. $\left(\frac{-1}{2}\right)^8$
b. $-\left(\frac{1}{2}\right)^8$
c. $\left(\frac{1}{4}\right)^8$
d. $\left(-\frac{1}{2}\right)^{15}$

19. Tick (✓) the correct answer the following:
The value of $(3^{-1} + 4^{-1})^{-1} \div 5^{-1}$ is:
a. $\frac{7}{10}$
b. $\frac{60}{7}$
c. $\frac{7}{5}$
d. $\frac{7}{15}$

20. Tick (✓) the correct answer the following:
$\left\{\left(\frac{1}{3}\right)^{-3} - \left(\frac{1}{2}\right)^{-3}\right\} \div \left(\frac{1}{4}\right)^{-3} = ?$
a. $\frac{19}{64}$
b. $\frac{27}{16}$
c. $\frac{64}{19}$
d. $\frac{16}{25}$

21. Tick (✓) the correct answer the following:
The value of x for which $\left(\frac{7}{12}\right)^{-4} \times \left(\frac{7}{12}\right)^{3x} = \left(\frac{7}{12}\right)^5$, is:
a. -1
b. 1
c. 2
d. 3

22. The value of $\left(\frac{2}{5}\right)^{-3}$ is
(A) $-\frac{8}{125}$ (B) $\frac{25}{4}$ (C) $\frac{125}{8}$ (D) $-\frac{2}{5}$

23. The value of $(-3)^{-4}$ is
(A) 12 (B) 81 (C) $-\frac{1}{12}$ (D) $\frac{1}{81}$

24. $\left(2^{-5} \div 2^{-2}\right) = ?$
(A) $\frac{1}{128}$ (B) $\frac{-1}{128}$ (C) $-\frac{1}{8}$ (D) $\frac{1}{8}$

25. The value of $\left(3^{-1} + 4^{-1}\right)^{-1} \div 5^{-1}$ is
(A) $\frac{7}{10}$ (B) $\frac{60}{7}$ (C) $\frac{7}{5}$ (D) $\frac{7}{15}$

26. $\left(\frac{1}{2}\right)^{-2} + \left(\frac{1}{3}\right)^{-2} + \left(\frac{1}{4}\right)^{-2} = ?$
(A) $\frac{61}{144}$ (B) $\frac{144}{61}$ (C) 29 (D) $\frac{1}{29}$

27. $\left\{\left(\frac{1}{3}\right)^{-3} - \left(\frac{1}{2}\right)^{-3}\right\} \div \left(\frac{1}{4}\right)^{-3} = ?$
(A) $\frac{19}{64}$ (B) $\frac{27}{16}$ (C) $\frac{64}{19}$ (D) $\frac{16}{25}$

28. $\left[\left\{\left(-\frac{1}{2}\right)^2\right\}^{-2}\right]^{-1} = ?$
(A) $\frac{1}{16}$ (B) 16 (C) $-\frac{1}{16}$ (D) -16

29. The value of x for which $\left(\frac{7}{12}\right)^{-4} \times \left(\frac{7}{12}\right)^{3x} = \left(\frac{7}{12}\right)^{0}$, is

(A) -1 (B) 1 (C) 2 (D) 3

30. If $\left(2^{3x-1} + 10\right) \div 7 = 6$, then x is equal to

(A) -2 (B) 0 (C) 1 (D) 2

31. $\left(\frac{-5}{3}\right)^{-1} = ?$

(A) $\frac{5}{3}$ (B) $\frac{3}{5}$ (C) $\frac{-3}{5}$ (D) none of these

32. $\left(-\frac{1}{2}\right)^{3} = ?$

(A) $\frac{-1}{6}$ (B) $\frac{1}{6}$ (C) $\frac{1}{8}$ (D) $\frac{-1}{8}$

33. $\left(\frac{-3}{4}\right)^{2} = ?$

(A) $\frac{-9}{16}$ (B) $\frac{9}{16}$ (C) $\frac{16}{9}$ (D) $\frac{-16}{9}$

34. 3670000 in standard form is

(A) 367×10^4 (B) 36.7×10^5 (C) 3.67×10^6 (D) none of these

35. 0.0000463 in standard form is

(A) 463×10^{-7} (B) 4.63×10^{-5} (C) 4.63×10^{-9} (D) 46.3×10^{-6}

36. 0.000367×10^4 in usual form is

(A) 3.67 (B) 36.7 (C) 0.367 (D) 0.0367

37. Tick (✓) the correct answer the following:

0.000367 × 10^4 in usual form is:

a. 3.67
b. 36.7
c. 0.367
d. 0.0367

38. The standard form of 5126000 is

(A) 5.126×10^4 (B) 5.126×10^6 (C) 5.126×10^{-4} (D) 5.126×10^{-6}

39. If $\frac{8^{2n+1}}{8^{-3}} = 8^5$, then the value of n is

(A) $\frac{1}{2}$ (B) $\frac{-1}{2}$ (C) 2 (D) -2

40. The distance of planet Neptune from the Sun is 4495000000000000 km . Which of the following can be another way of representing the distance (in km) between the Neptune and the Sun?

(A) 4.495×10^{14} (B) 4.495×10^{15} (C) 4.495×10^{16} (D) 4.495×10^{17}

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