ASSIGNMENT
CHAPTER-12
EXPONENTS AND POWER

1. Simplify $(1 / 3^2)^3$.
2. Evaluate: $(5^{-1} \times 8^2) / (2^{-3} \times 10^{-1})$.
3. Find the value of 'm' for which $6^m / 6^{-3} = 6^{5?}$
4. Evaluate $[(1/2)^{-1} - (1/3)^{-1}]^{-1}$.
5. Simplify: $(-3)^5 \times (5/3)^5$.
6. Compare 7×10^{-6} and 129×10^{-7}.
7. The size of a plant cell is 0.00001275 m express it in standard form.
8. If the thickness of a paper sheet is 0.0016 cm, find the thickness of 100 sheets. Express the answer in standard form.
9. Find the value of $5^{-3} \times 1/5^3$.
10. Simplify $2^5 / 2^{-6}$.
11. Express 4^{-3} as a power with base 2.
12. Simplify and write the answer in exponential form: $(2^5 / 2^8)^5 \times 2^{-5}$.
13. Find the value of $(2/3)^{-2}$.
14. Simplify: $(5/8)^{-7} \times (8/5)^{-5}$.
15. Simplify $(-4)^{-10} \times (-4)^5$
16. What is the reciprocal of 0.1?
17. What is the value of x in $5^x \div 5^{-3} = 5^5$?
18. Evaluate
    1. 2^{-2}
    2. $(-2)^{-2}$
    3. $(3/2)^{-5}$
19. Simplify and express the result in power notation with positive exponent.
    (i) $(-2)^5 \div (-2)^4$
    (ii) $(1/2)^2 \times (2/5)^2$
    (iii) $(-5)^2 \times (3/5)$
20. Find the value of.
    (i) $(4^0 + 4^{-1}) \times 2^2$
    (ii) $(3^{-1} \times 9^{-1}) \div 3^{-2}$
    (iii) $(11^{-1} + 12^{-1} + 13^{-1})^0$
21. Find the value of m for which $2^m \div 2^{-4} = 4^5$
22. Express the following numbers in standard form.
    (i) 0.0000000015
    (ii) 0.00000001425

(iii) 102000000000000000

Question23. Express the following numbers in usual form.

(i) 34.02×10^{-5}

(ii) 9.5×10^{5}

(iii) 9×10^{-4}

(iv) 2.0001×10^{8}