MATHEMATICS IN EVERYDAY LIFE–7

CORDOVA™

ASSESSMENT

Chapter 6 : Exponents and Powers

Max.Marks : 20

A : Choose the correct alternatives in each of the following : **(1 × 5 = 5)**

1. Which is greater : 3^2, 2^3, 3^3, 2×3?
(*a*) 3^3 (*b*) 2^3 (*c*) 3^2 (*d*) 2×3

2. 512 as a power of 2 can be expressed as
(*a*) 2^6 (*b*) 2^7 (*c*) 2^8 (*d*) 2^9

3. $\frac{-64}{343}$ in the exponential form is
(*a*) $\left(\frac{-3}{4}\right)^3$ (*b*) $\left(\frac{-4}{7}\right)^3$ (*c*) $\left(\frac{-7}{4}\right)^3$ (*d*) $\left(\frac{-2}{7}\right)^3$

4. In the expression $2^3 \times y^3 = 64$, the value of y is
(*a*) 0 (*b*) 1 (*c*) 2 (*d*) 3

5. The distance between two planets is 38,40,00,000 m, we can express this distance as
(*a*) 38.4×10^6 m (*b*) 384×10^7 m (*c*) 3.84×10^8 m (*d*) 3.84×10^9 m

B : Solve the following : **(3 × 5 = 15)**

1. Simplify : $\frac{3^5 \times 10^5 \times 25}{5^7 \times 6^5}$

2. Find the reciprocal of $\left(\frac{-6}{7}\right)^8 \div \left(\frac{-6}{7}\right)^{15}$.

3. Evaluate : $\frac{(81)^3 \times (25)^5 \times (14)^7 \times 4^7}{(80)^3 \times (12)^5 \times 7^7 \times (15)^7}$

4. By what number should $(-15)^{-2}$ be divided so that the quotient is equal to (-5)?

5. Express the number appearing in the statement in standard form :

"The population of India was about 1,027,000,000 in march 2001."