



Subject: - Mathematics

TEST PAPER

CBSE-7th

Topic: - Exponents & Powers

Time: - 60mins, M.M:-25

(SECTION A – 1 MARK)

1. A boy was asked to write $2^5 \times 9^2$ but he wrote 2592. The numerical difference between the two is: -

- a) 0 b) 1 c) 2 d) 3

2. The reciprocal of $\left(\frac{-2}{3}\right)^4 \times \left(\frac{-3}{4}\right)^3$ is: -

- a) -12 b) 12 c) $\frac{-3}{4}$ d) $\frac{4}{3}$

3. 16^2 as a power of 2 is: -

- a) 2^6 b) 2^8 c) 2^4 d) 2^{16}

4. Simplify: - $(2^4 \times 2^5) \div (2^2 \times 2^3)$

- a) 214 b) 16 c) 32 d) $\frac{1}{2^4}$

5. If $3^n = 27$, then 3^{n-2} equals: -

- a) 3 b) 0 c) 1 d) 9

(SECTION B – 2 MARKS)

1. Express in power notation: -

- a) $\frac{81}{625}$ b) $\frac{-8}{27}$

2. Simplify: - a) $7^0 + 8^0 + 9^0$

b) Write in scientific notation:

i) Saturn is about 1,600,000,000 km from the Earth.

3. Expand 34,00,600 using exponents.

(SECTION C – 3 MARKS)

1. Simplify: - a) $\frac{3^8 \times a^6}{9^3 \times a^3}$.

2. If $4^x = 256$, then find the value of 6^{2x-8} ?

(SECTION D – 4 MARKS)

1. Simplify: - $\left[\left(\frac{-2}{3}\right)^3 \times \left(\frac{-2}{3}\right)\right] \div \left(\frac{4}{9}\right)^2$ and express the result as a power of 2.

2. Simplify: - $\frac{25 \times 5^2 \times t^8}{10^3 \times t^4}$.