General Instructions:

1. This question paper consists of **15 multiple-choice questions (MCQs)**.
2. Each question carries **1 mark**. The maximum marks for this test are **15**.
3. The total time allowed to complete this test is **20 minutes**.
4. All questions are compulsory.
5. Each question has **four options (A), (B), (C), and (D)**. Only one option is correct.
6. Students must choose the **most appropriate option** for each question.
7. No marks will be deducted for incorrect answers.
8. Calculators and other electronic devices are **not permitted**.
9. Rough work should be done neatly in the space provided (if any).
10. Read each question carefully before answering.

Chapter: Exponents and Powers **Class:** 7
Test Code: 2026/Exponents/VII/04
Max Marks: 15

Q.1 Find the value of x if $\left(\frac{125}{27}\right) \times \left(\frac{5}{3}\right)^x = \left(\frac{25}{9}\right)^2$.

(a) 1

(b) 2

(c) 3

(d) 4

Q.2 Simplify: $\frac{(-3)^4 \times (-3)^0 \times (-3)^{-2}}{(-3)^2}$.

(a) 1

(b) -3

(c) 9

(d) 0

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

(a) 3

(b) 2

(c) 0

(d) -2

Q.4 The value of $\left[\left(\frac{1}{2}\right)^{-2} + \left(\frac{1}{3}\right)^{-2}\right] \div 13^0$ is:

(a) 13

(b) 1

(c) 5

(d) 25

Q.5 Which of the following is equivalent to 0.00000056×10^2?

(a) 5.6×10^{-5}

(b) 5.6×10^{-6}

(c) 5.6×10^{-7}

(d) 5.6×10^{-4}

Q.6 If $x = (-2)^3$ and $y = (-3)^2$, then the value of $x + y$ is:

(a) 1

(b) -1

(c) 17

(d) -17

Q.7 Find the value of $\left(\frac{a^x}{a^y}\right)^{x+y} \times \left(\frac{a^y}{a^z}\right)^{y+z} \times \left(\frac{a^z}{a^x}\right)^{z+x}$.

(a) a^{xyz}

(b) 0

(c) 1

(d) a

Q.8 Simplify: $(2^3 \times 3^2)^2 \div (2^2 \times 3^3)$.

(a) $2^4 \times 3$

(b) $2^4 \div 3$

(c) $2^2 \times 3^2$

(d) $2^5 \times 3$

Q.9 If $10^x = 0.0001$, then the value of x is:

(a) -3

(b) -4

(c) 4

(d) -5

Q.10 The value of $\frac{2^n+2^{n-1}}{2^{n+1}-2^n}$ is:

(a) 1

(b) 2

(c) 3/2

(d) 2/3

Q.11 If $(2^2)^n = 2^3 \times 2^5$, find n.

(a) 4

(b) 8

(c) 2

(d) 16

Q.12 The standard form of the distance of the Sun from Earth, which is $149,600,000,000$ m, is:

(a) 1.496×10^{11} m

(b) 14.96×10^{10} m

(c) 1.496×10^{12} m

(d) 0.1496×10^{12} m

Q.13 Simplify: $[\{(-1/3)^2\}^{-2}]^{-1}$.

(a) 1/81

(b) 81

(c) 1/9

(d) 9

Q.14 If $3^{x+1} = 9^{x-2}$, then the value of x is:

(a) 5

(b) 3

(c) 4

(d) 2

Q.15 The value of $\left(\frac{p}{q}\right)^{n-1}$ when $p = 3, q = 2, n = 0$ is:

(a) 2/3

(b) 3/2

(c) 1

(d) 0

— End of Question Paper —