

1) The value of $9^5 \times 3^{-4} \times 27^3$ is

[MP Patwari 2017]

- a) 3^{10}
- b) 3^{15}
- c) 3^9
- d) 3^{11}

8) Find the value of $(2 + \sqrt{2}) + \left(\frac{1}{2+\sqrt{2}}\right) + \left(\frac{1}{2-\sqrt{2}}\right) + (2 - \sqrt{2})$

[SSC CGL 2018]

- a) 2
- b) 4
- c) 8
- d) 6

2) What is the value of $\sqrt{2^4} + \sqrt[3]{64} + \sqrt[4]{2^8} = ?$

[UPPSC Revenue Inspector 2017]

- a) 12
- b) 18
- c) 16
- d) 24

9) If $x = \sqrt{6 + \sqrt{6 + \sqrt{6 + \dots \infty}}}$, then find the value of x.

[UPPSC revenue Inspector 2017]

- a) 4
- b) 2
- c) 6
- d) 3

3) If $3^{x+2} = 243$, then what is the value of x?

[MP Patwari 2017]

- a) 2
- b) 3
- c) 4
- d) 5

10) If $x = \sqrt{56 - \sqrt{56 - \sqrt{56 - \dots \infty}}}$, then find the value of x.

[RRB JE 2019]

- a) 7
- b) -8
- c) -7, 8
- d) -8, 7

4) What will come at the place of question mark (?) in

$$8^2 \times 8^2 = 2^? \times 2^6 \times 4$$

[IBPS Clerk 2017]

- a) 1
- b) 3
- c) 2
- d) 5
- e) 4

11) Find the value of $\sqrt{7\sqrt{7\sqrt{7\dots \infty}}}$.

- a) 8
- b) $7^{\frac{1}{3}}$
- c) 7
- d) $8^{\frac{1}{3}}$

5) If $5^a = 3125$, then the value of 5^{a-3} .

[CGPSC 2019]

- a) 625
- b) 25
- c) 5
- d) 225

12) Find the value of $\sqrt[3]{3\sqrt{3\sqrt{3\sqrt{3\dots \infty}}}}$.

- a) $3^{\frac{15}{16}}$
- b) 3
- c) $3^{\frac{2}{17}}$
- d) $3^{\frac{1}{16}}$

6) The value of $\frac{\left[\left(\frac{1}{3}\right)^{-3} - \left(\frac{1}{2}\right)^{-3}\right] \div \left(\frac{1}{4}\right)^{-3}}{(2^{-1} \times 5^{-1}) \div 4^{-1}}$

[RRB ALP 2018]

- a) $\frac{38}{3}$
- b) $\frac{38}{5}$
- c) $\frac{95}{128}$
- d) $\frac{19}{64}$

7) The greatest number among $\sqrt{5}$, $\sqrt[3]{4}$, $\sqrt[5]{2}$, $\sqrt[7]{3}$ is

[SSC CGL 2010]

- a) $\sqrt[3]{4}$
- b) $\sqrt[7]{3}$
- c) $\sqrt{5}$
- f) $\sqrt[5]{2}$

