



1. Which of the following is a second order surd?

- (i) $(-8\sqrt{6})$ (ii) $\sqrt[8]{9}$ (iii) $(-6\sqrt{6})$ (iv) $7\sqrt[3]{8}$ (v) $9\sqrt[4]{3}$

2. Which of the following is a cubic surd?

- (i) $(-6\sqrt{7})$ (ii) $\sqrt[7]{8}$ (iii) $5\sqrt[3]{8}$ (iv) $6\sqrt[4]{4}$ (v) $(-8\sqrt[5]{2})$

3. Which of the following is a biquadratic surd?

- (i) $(-7\sqrt[3]{9})$ (ii) $(-9\sqrt[5]{7})$ (iii) $(-\sqrt[8]{7})$ (iv) $(-4\sqrt[4]{9})$ (v) $\sqrt{6}$

4. Which of the following is a fifth order surd?

- (i) $\sqrt[9]{4}$ (ii) $(-5\sqrt[5]{9})$ (iii) $(-\sqrt[4]{7})$ (iv) $(-2\sqrt[3]{5})$ (v) $3\sqrt[2]{2}$

5. The order of the surd $\frac{9}{13}\sqrt[20]{36}$ is

- (i) $\sqrt[20]{36}$ (ii) 20 (iii) 36 (iv) $\frac{9}{13}$ (v) $\frac{1}{20}$

6. The rationalising factor of $2\sqrt{64}$ =

- (i) 1 (ii) 0 (iii) 4 (iv) 2 (v) (-2)

If $\sqrt{2} = 1.4142$, $\sqrt{3} = 1.7321$, $\sqrt{5} = 2.2361$, $\sqrt{7} = 2.6458$,

7. $\frac{4\sqrt{4}}{8\sqrt{2}}$
the value of $\frac{4\sqrt{4}}{8\sqrt{2}}$ =

- (i) 7.707 (ii) 2.707 (iii) 0.707 (iv) 8.707 (v) 1.707

8. $\sqrt[6]{3} \times \sqrt[6]{2} =$

- (i) $\sqrt[6]{9}$ (ii) $\sqrt[8]{6}$ (iii) $\sqrt[4]{6}$ (iv) $\sqrt[6]{6}$ (v) $\sqrt[6]{4}$

9. $2\sqrt{8} \times 5\sqrt{8} =$

- (i) 81 (ii) 78 (iii) 83 (iv) 80 (v) 79

$$10. \frac{7\sqrt{4}}{7\sqrt{7}} =$$

- (i) $\sqrt{2}$ (ii) $\sqrt[9]{4}$ (iii) $\sqrt[7]{6}$ (iv) $\sqrt[5]{4}$ (v) $\sqrt[7]{4}$

$$11. \frac{7\sqrt{10}}{2\sqrt{9}} =$$

- (i) $\sqrt{\frac{245}{18}}$ (ii) $\sqrt[4]{\frac{245}{18}}$ (iii) $\frac{245}{18}$ (iv) $\sqrt{\frac{27}{2}}$ (v) $\sqrt{\frac{247}{18}}$

$$12. \frac{8\sqrt{15}}{8\sqrt{15}} =$$

- (i) 1 (ii) 4 (iii) 0 (iv) (-1) (v) 2

$$13. \frac{8\sqrt{2}}{8\sqrt{11}} =$$

- (i) $\sqrt{\frac{11}{2}}$ (ii) $\sqrt{\frac{2}{11}}$ (iii) $\sqrt{\frac{4}{11}}$ (iv) $\frac{2}{11}$ (v) $\sqrt[4]{\frac{2}{11}}$

$$14. \sqrt[4]{\sqrt[4]{9}} =$$

- (i) $\sqrt[16]{9}$ (ii) $\sqrt[4]{1}$ (iii) $\sqrt{9}$ (iv) $\sqrt[16]{11}$ (v) $\sqrt[16]{6}$

$$15. \sqrt[4]{15^{19}} =$$

- (i) $15^{\left(\frac{4}{19}\right)}$ (ii) $15^{\left(\frac{19}{4}\right)}$ (iii) $15^{\left(\frac{19}{2}\right)}$ (iv) $13^{\left(\frac{19}{4}\right)}$ (v) $17^{\left(\frac{19}{4}\right)}$

$$16. \sqrt[19]{3} =$$

- (i) 3^{19} (ii) $3^{\left(\frac{1}{17}\right)}$ (iii) $6^{\left(\frac{1}{19}\right)}$ (iv) $3^{\left(\frac{1}{19}\right)}$ (v) 1

17. $5^{\left(\frac{1}{3}\right)} =$

- (i) $\sqrt[3]{5}$ (ii) $\sqrt[3]{2}$ (iii) $\sqrt[3]{8}$ (iv) 5 (v) $\sqrt[3]{5}$

18. Which of the following is an irrational number?

- (i) $\sqrt{94}$ (ii) (-1) (iii) 17 (iv) $\frac{8}{25}$ (v) 3.2222

19. Which of the following is a rational number?

- (i) $\sqrt{10}$ (ii) $\sqrt{90}$ (iii) $\frac{8}{21}$ (iv) $\sqrt[3]{24}$ (v) $\sqrt[3]{13}$

Assignment Key

1) (iii)	2) (iii)	3) (iv)	4) (ii)	5) (ii)	6) (i)
7) (iii)	8) (iv)	9) (iv)	10) (v)	11) (i)	12) (i)
13) (ii)	14) (i)	15) (ii)	16) (iv)	17) (v)	18) (i)
19) (iii)					