1. If $\sqrt{7\sqrt{7\sqrt{7\ldots\infty}}} = 343^{y-1}$ then y =?

a) $\frac{4}{3}$ b) $\frac{3}{2}$ c) $\frac{5}{4}$ d) 1

2. $\sqrt[3]{64\sqrt[3]{64\sqrt[3]{64\ldots\ldots\ldots}}}$ =?

a)4 b)8 c)16 d)$4\sqrt{2}$

3. $\sqrt[4]{0.512\sqrt[4]{0.512\sqrt[4]{0.512\ldots\ldots\ldots\infty}}}$

A) 0.16
B) 0.8
C) 0.12
D) 0.08

4. $\sqrt{27 \div \sqrt{27 \div \sqrt{27 \div \sqrt{27\ldots\ldots\ldots\infty}}}}$ =?

a)3 b)$3\sqrt{3}$ c)$\sqrt{3}$ d)9

5. Find $\sqrt{12\sqrt{12\sqrt{12\sqrt{12\sqrt{12\sqrt{12}}}}}}$ =?

a) $12^{\frac{32}{31}}$ b) $12^{\frac{64}{63}}$
c) $12^{\frac{31}{32}}$ d) $12^{\frac{63}{64}}$

6. if $\sqrt[3]{11\sqrt[3]{11\sqrt[3]{11\sqrt[3]{11\sqrt[3]{11}}}}} = 121^{k}$ then k =?

7. $\sqrt[m]{a\sqrt[n]{b\sqrt[m]{a\sqrt[n]{b\sqrt[m]{a\sqrt[n]{b\ldots\ldots\ldots\ldots\ldots\ldots\infty}}}}}}$ can be written as ?

a) $\sqrt[mn-1]{a^n b}$ b) $\sqrt[mn]{ab}$
c) $\sqrt[mn-1]{b^n a}$ d) $\sqrt[mn+1]{a^n b}$

8. Find the value of $\sqrt{30+\sqrt{30+\sqrt{30+\cdots}}}$

$\sqrt{30+\sqrt{30+\sqrt{30+\cdots}}}$ का मान ज्ञात कीजिए?

(a)5 (b)$3\sqrt{10}$ (c)6 (d)7

9. Find the value of the given expression?

दिए गए ब्यंजक का मान ज्ञात कीजिये?

$\sqrt{20-\sqrt{20-\sqrt{20-\cdots\ldots\ldots\ldots\infty}}}$

A) 5
B) 6
C) 2
D) 4

10. Let x = $\sqrt{42-\sqrt{42-\sqrt{42-\sqrt{42-\cdots}}}}$ to infinity ; then x equals

a) 6 b) 7
c) Between 6 and 7 d) Greater than 7

11. $\sqrt{0.56+\sqrt{0.56+\cdots\ldots\ldots\ldots\ldots\infty}}$ =?

A) 1.4
B) 1.2
C) 1.3
D) 1.1

12. $\sqrt{\frac{15}{4}+\sqrt{\frac{15}{4}+\sqrt{\frac{15}{4}+\cdots\ldots\ldots\ldots\ldots\infty}}}=?$

A) 1.5
B) 2.5
C) 3
D) 2.75

13. $\frac{\sqrt{210+\sqrt{210+\sqrt{210+\cdots}}}}{\sqrt{156-\sqrt{156-\sqrt{156-\cdots}}}}=?$

a)1 b)1.33 c)1.25 d)1.5

14. $\sqrt{14+\sqrt{14+\sqrt{14+\sqrt{14+\cdots\infty}}}}$ lies between

a) 4 and 4.5 b) 4.5 and 5
c)3 and 4 d) none

15. Find $\sqrt{19-\sqrt{19-\sqrt{19-\sqrt{19\ldots\infty}}}}=?$

a) $\frac{\sqrt{77}-1}{2}$ b) $\frac{\sqrt{19}+3}{2}$
c) $\frac{\sqrt{77}+1}{2}$ d) Between 4 and 5

16. If a = $\sqrt{13+\sqrt{13+\sqrt{13+\sqrt{13\ldots\infty}}}}$ and

b= $\sqrt{13-\sqrt{13-\sqrt{13-\sqrt{13\ldots\infty}}}}$, then which option is true?

a) a + b + 1=0 b) a - b - 1=0
c) a - b + 1=0 d) a - b + 1=0

17. Find $\sqrt{154+3\sqrt{154+3\sqrt{154+3\sqrt{154+\cdots\infty}}}}=?$

a)13 b) 14 d) 11 d) $\frac{\sqrt{613}+9}{2}$

18. $\sqrt{750-5\sqrt{750-5\sqrt{750\ldots\ldots\ldots\infty}}}=?$

A) 20
B) 25
C) 30
D) 10

19. Let x = $\sqrt{4+\sqrt{4-\sqrt{4+\sqrt{4-\cdots}}}}$ to infinity; then x equals

a) 3 b) $\sqrt{13}$ c) $\frac{\sqrt{13}-1}{2}$ d) $\frac{\sqrt{13}+1}{2}$

20. Let x= $\sqrt{13-\sqrt{13+\sqrt{13-\sqrt{13+\cdots\infty}}}}$; then x equals

a) 3 b) $\sqrt{21}$ c)2 d) $\frac{\sqrt{19}+1}{2}$

21. If m = $\frac{1}{2+\frac{1}{3+\frac{1}{2+\frac{1}{3+\cdots}}}}$, then find m?

यदि $m=\frac{1}{2+\frac{1}{3+\frac{1}{2+\frac{1}{3+\cdots}}}}$ है, तो m ज्ञात कीजिये?

A) $\frac{\sqrt{15}-3}{2}$ C) $\frac{\sqrt{15}+3}{2}$
B) $\frac{\sqrt{13}+3}{2}$ D) $\frac{\sqrt{13}-3}{2}$

22. Which among $2^{1/2}, 3^{1/3}, 4^{1/4}, 6^{1/6}$ and $12^{1/12}$ is the largest?

a) $2^{1/2}$ b) $3^{1/3}$ c) $4^{1/4}$ d) $6^{1/6}$ e) $12^{1/12}$

23. Which of the following given value is greater than $\sqrt[3]{12}$?

दिया गया कौन से मान $\sqrt[3]{12}$ से अधिक है?

(a) $\sqrt[12]{33214}$ (b) $\sqrt[5]{60}$

(c) $\sqrt[6]{121}$ (d) $\sqrt[9]{1500}$

24. Which of the following is TRUE?

I. $\sqrt[3]{11} > \sqrt{7} > \sqrt[4]{45}$

II. $\sqrt{7} > \sqrt[3]{11} > \sqrt[4]{45}$

III. $\sqrt{7} > \sqrt[4]{45} > \sqrt[3]{11}$

IV. $\sqrt[4]{45} > \sqrt{7} > \sqrt[3]{11}$

निम्नलिखित में से कौन सा सत्य है?

I. $\sqrt[3]{11} > \sqrt{7} > \sqrt[4]{45}$

II. $\sqrt{7} > \sqrt[3]{11} > \sqrt[4]{45}$

III. $\sqrt{7} > \sqrt[4]{45} > \sqrt[3]{11}$

IV. $\sqrt[4]{45} > \sqrt{7} > \sqrt[3]{11}$

Options:

a) Only I/केवल I

b) Only II/केवल II

c) Only III/केवल III

d) Only IV/केवल IV

25. Which of the following is TRUE?

निम्नलिखित में से कौन सा सत्य है?

I. $\frac{1}{\sqrt[3]{12}} > \frac{1}{\sqrt[4]{29}} > \frac{1}{\sqrt{5}}$

II. $\frac{1}{\sqrt[4]{29}} > \frac{1}{\sqrt[3]{12}} > \frac{1}{\sqrt{5}}$

III. $\frac{1}{\sqrt{5}} > \frac{1}{\sqrt[3]{12}} > \frac{1}{\sqrt[4]{29}}$

IV. $\frac{1}{\sqrt{5}} > \frac{1}{\sqrt[4]{29}} > \frac{1}{\sqrt[3]{12}}$

Options:

a) Only I/केवल I

b) Only II/केवल II

c) Only III/केवल III

d) Only IV/केवल IV

26. The greatest number among $2^{72}, 5^{36}, 11^{24}$ and 3^{60} is

(a) 2^{72} (b) 5^{36} (c) 11^{24} (d) 3^{60}

27. The smallest of $(\sqrt{8}+\sqrt{5})$, $(\sqrt{7}+\sqrt{6})$, $(\sqrt{10}+\sqrt{3})$, and $(\sqrt{11}+\sqrt{2})$ is:

a) $(\sqrt{8}+\sqrt{5})$ b) $(\sqrt{7}+\sqrt{6})$ c) $(\sqrt{10}+\sqrt{3})$ d) $(\sqrt{11}+\sqrt{2})$

28. The smallest of, $(\sqrt{69}+2\sqrt{7})$, $(\sqrt{61}+6)$, $(5\sqrt{3}+\sqrt{22})$, and $(\sqrt{58}+\sqrt{39})$ is:

a) $(\sqrt{61}+6)$ b) $(\sqrt{69}+2\sqrt{7})$ c) $(5\sqrt{3}+\sqrt{22})$ d) $(\sqrt{58}+\sqrt{39})$

29. Which is the greatest among $(\sqrt{24}+\sqrt{10})$, $(\sqrt{30}+\sqrt{8})$, $(\sqrt{15}+4)$, $(\sqrt{12}+\sqrt{20})$?

$(\sqrt{24}+\sqrt{10})$, $(\sqrt{30}+\sqrt{8})$, $(\sqrt{15}+4)$, $(\sqrt{12}+\sqrt{20})$ निम्नलिखित में से कौन सी संख्या *सबसे बड़ी है*

a) $\sqrt{24}+\sqrt{10}$) b) $(\sqrt{30}+\sqrt{8})$ c) $(\sqrt{15}+4)$ d) $(\sqrt{12}+\sqrt{20})$

30. Which is the greatest among

$(\sqrt{17}-\sqrt{14})$, $(\sqrt{19}-4)$, $(\sqrt{22}-\sqrt{19})$, $(\sqrt{13}-\sqrt{10})$?

a) $(\sqrt{17}-\sqrt{14})$ b) $(\sqrt{19}-4)$ c) $(\sqrt{22}-\sqrt{19})$ d) $(\sqrt{13}-\sqrt{10})$