Exponents: Worksheet -4

1) The sum of the digits when expressed as a single digit of $(10^{30} - 3)$ [ ]

a) 258 b) 1000 c) 268 d) 999

2) The largest number which is formed by four ones as its digits [ ]

a) 11 b) 111^1 c) 11^{11} d) 1111

3) Which of the following is true [ ]

a) $a^m \times a^n = a^{m+n}$ b) $a^m \div a^n = a^{m-n}$

c) $(a^m)^n = a^{mn}$ d) All these

4) $\sqrt[3]{27a^3b^2}$ [ ]

a) $3a^2 b^2$ b) 3ab c) $3 a^3 b^{2/3}$ d) $3 a.b^{2/3}$

5) 7^{th} root of 128= [ ]

a) 2 b) 4 c) 8 d) 128

6) $\sqrt[4]{-16}$ [ ]

a) – 2 b) 2 c) – 4 d) Does not exist

7). The value of $3\sqrt[3]{2} \times 7\sqrt[3]{6} \times 5\sqrt[3]{18}$ [ ]

a) 545 b) 500 c) 630 d) none

8) $(512)^{0.3}$ $(512)^{0.03}$ $(512)^{0.003}$ ---------- $\propto$ [ ]

a) 2 b) 4 c) 8 d) 5

9) $\left(\frac{32}{243}\right)^{4/5}$ = [ ]

a) $\frac{16}{25}$ b) $\frac{81}{61}$ c) $\frac{16}{81}$ d) $\frac{81}{25}$

10) If $\sqrt{\left(\frac{3}{5}\right)^{1-2x}} = 4\frac{17}{27}$ then x =? [ ]

a) $\frac{2}{5}$ b) $\frac{2}{7}$ c) $\frac{7}{2}$ d) $\frac{5}{7}$

11) The biggest among $(64)^3$, $(32)^5$, $(128)^3$, $(16)^5$ [ ]

a) $(64)^3$ b) $(32)^5$ c) $(128)^3$ d) $(16)^5$

12) If $2^4 + 2^4 + 2^4 + 2^4 = 4^x$ then the value of x is [ ]

a) 2 b) 3 c) 6 d) 5

13) Given n is a a natural number if $n^2 + n^2 + \ldots\ldots\ldots + n^2$ (n times) = 64

then $n^3 + n^3 + \ldots\ldots\ldots + n^3$ (n times) = [ ]

a) 512 b) 256 c) 1024 d) 2048

14) Half of 4^{40} is [ ]

a) 2^{40} b) 4^{20} c) 2^{79} d) 2^{20}

15) The value of $\frac{1}{5}$ of 15^{12} is [ ]

a) 5^{17} b) 15^9 c) 5×15^{12} d) $15^{11} \times 3$