First Multiple choice questions

1 $\left(-1\ \frac{1}{4}\right)^3 =$ .....

(a) $\frac{125}{64}$ (b) $-\frac{125}{64}$ (c) $\frac{25}{16}$ (d) $-\frac{1}{64}$

2 $\left(-\frac{2}{3}\right)^{-3} =$ .....

(a) $\frac{-8}{27}$ (b) $\frac{-27}{8}$ (c) $\frac{8}{27}$ (d) $\frac{27}{8}$

3 If $(X)^{-1} = 2$, then $X =$ .....

(a) -2 (b) ± 2 (c) $-\frac{1}{2}$ (d) $\frac{1}{2}$

4 The greatest value of $\left(\frac{1}{5}\right)^X$ when $X =$ .....

(a) zero (b) 1 (c) 2 (d) 3

5 If $a = -3$, $b = 5$, then $\left(\frac{a}{b}\right)^2 =$ .....

(a) $-\frac{9}{25}$ (b) $-\frac{25}{9}$ (c) $\frac{9}{25}$ (d) $\frac{25}{9}$

6 The multiplicative inverse of the number $(-3)^{zero}$ is .....

(a) 3 (b) 3 (c) -1 (d) 1

7 The multiplicative inverse of the number $\sqrt{6\ \frac{1}{4}}$ is .....

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

8 The additive inverse of the number $\left(-\frac{2}{3}\right)^4$ is .....

(a) $\frac{2}{3}$ (b) $-\frac{16}{81}$ (c) $\frac{81}{16}$ (d) $-\frac{81}{16}$

9 $\left(\frac{a}{b}\right)^3 \times \frac{b^3}{a^3} =$ ..... (Where $a \neq$ zero , $b \neq$ zero)

(a) ab (b) $\left(\frac{a}{b}\right)^6$ (c) $(ab)^{zero}$ (d) $\frac{a}{b}$

10 If $2^X = 5$, then $2^{X+1} =$ .....

(a) 6 (b) 7 (c) 10 (d) 64

11 $a^{-4} \div a^{-6} =$ ..... (Where $a \neq$ zero)

(a) a^{-10} (b) a^{-2} (c) a^2 (d) a^{10}

12 $3^{10} + 3^{10} + 3^{10} =$ .....

(a) 3^{11} (b) 3^{30} (c) 9^{10} (d) 9^{30}

13 Half the number $2^{20} =$ .....

(a) 2^{18} (b) 2^{19} (c) 2^4 (d) 2^5

14 The number which is in standard form from the following is .....

(a) 11×10^8 (b) 9.7×10^{-5} (c) 10.2×10^{-2} (d) 0.87×10^8

15 If $0.00049 = 4.9 \times 10^n$, then n = ...

(a) 4 (b) – 4 (c) 5 (d) – 5

16 If $6300000 = 6.3 \times 10^n$, then n = ...

(a) 6 (b) – 6 (c) 5 (d) – 5

17 The standard form of the number 53700 is $5.37 \times$ .....

(a) 10^3 (b) 10^4 (c) 10^{-4} (d) 10^{-3}

18 Which of the following is the smallest ?

(a) 314×10^3 (b) 3.14×10^4 (c) 31.4×10^5 (d) 0.314×10^6

19 Which is the following is the greatest ?

(a) 2.3×10^7 (b) 3.2×10^7 (c) 7.6×10^6 (d) 6.7×10^6

20 If the thickness of a paper is 0.012 cm. , which of the following is the height of a ream of 400 sheets ?

(a) (48×10^{-3}) cm. (b) (48×10^{-2}) cm.

(c) $(4.8 \times 10^{\text{zero}})$ cm. (d) 48 cm.

21 The standard form of the number 750×10^{-6} is .....

(a) 7.5×10^{-8} (b) 7.5×10^{-7} (c) 7.5×10^{-4} (d) 7.5×10^4

22 Which of the following equals $\frac{1}{4}$ million ?

(a) 25×10^5 (b) 0.25×10^5 (c) 0.25×10^6 (d) 0.25×10^7

23 If $400000 = 4 \times 10^n$, then n = ...

(a) 6 (b) 5 (c) – 5 (d) – 6

24 $2.73 \times 10^{-4} =$ .....

(a) 0.00237 (b) 0.000237 (c) 23700 (d) 0.0000237