



1. The base in the term  $9^5$  is

- (i) 5 (ii) -9 (iii) 7 (iv) -5 (v) 9

2. The exponent in the term  $6^9$  is

- (i) 9 (ii) 6 (iii) -6 (iv) -9

3. The power in the term  $2^7$  is

- (i) -7 (ii) 4 (iii) -2 (iv) 2 (v) 7

4. The base in the term  $\left(\frac{5}{3}\right)^4$  is

- (i) 1 (ii) -4 (iii)  $\left(-\frac{5}{3}\right)$  (iv) 4 (v)  $\frac{5}{3}$

5. The exponent in the term  $9^{\left(\frac{5}{3}\right)}$  is

- (i)  $\left(-\frac{5}{3}\right)$  (ii) 1 (iii) -9 (iv) 9 (v)  $\frac{5}{3}$

6. Find the exponential notation of  $7 \times 7 \times 7 \times 7 \times 7$

- (i)  $5^5$  (ii)  $7^5$  (iii)  $7^4$  (iv)  $7^6$  (v)  $10^5$

7. Find the exponential notation of  $-3 \times -3 \times -3 \times -3$

- (i)  $(-3)^3$  (ii)  $(-3)^4$  (iii)  $(-6)^4$  (iv)  $(-3)^5$  (v)  $(-1)^4$

8. Find the exponential notation of  $-18 \times -18 \times -18 \times -18 \times -18$

- (i)  $(-18)^4$  (ii)  $(-18)^6$  (iii)  $(-16)^5$  (iv)  $(-18)^5$  (v)  $(-21)^5$

9. Find the exponential notation of  $17 \times 17 \times 17 \times 17$

- (i)  $19^4$  (ii)  $17^3$  (iii)  $17^5$  (iv)  $15^4$  (v)  $17^4$

Find the exponential notation of

10.  $\frac{7}{6} \times \frac{7}{6} \times \frac{7}{6} \times \frac{7}{6} \times \frac{7}{6} \times \frac{7}{6} \times \frac{7}{6} \times \frac{7}{6}$

- (i)  $\left(\frac{7}{6}\right)^8$  (ii)  $\left(\frac{7}{6}\right)^7$  (iii)  $\left(\frac{7}{6}\right)^9$  (iv)  $\left(\frac{3}{2}\right)^8$  (v)  $\left(\frac{5}{6}\right)^8$

Find the exponential notation of

11.  $\frac{17}{11} \times \frac{17}{11} \times \frac{17}{11} \times \frac{17}{11} \times \frac{17}{11} \times \frac{17}{11}$

- (i)  $\left(\frac{19}{11}\right)^6$  (ii)  $\left(\frac{17}{11}\right)^5$  (iii)  $\left(\frac{17}{11}\right)^7$  (iv)  $\left(\frac{15}{11}\right)^6$  (v)  $\left(\frac{17}{11}\right)^6$

Find the exponential notation of

12.  $\left(\frac{-7}{3}\right) \times \left(\frac{-7}{3}\right) \times \left(\frac{-7}{3}\right) \times \left(\frac{-7}{3}\right) \times \left(\frac{-7}{3}\right)$

- (i)  $\left(\frac{-5}{3}\right)^5$  (ii)  $(-3)^5$  (iii)  $\left(\frac{-7}{3}\right)^6$  (iv)  $\left(\frac{-7}{3}\right)^5$  (v)  $\left(\frac{-7}{3}\right)^4$

Find the exponential notation of

13.  $\left(\frac{-13}{19}\right) \times \left(\frac{-13}{19}\right) \times \left(\frac{-13}{19}\right) \times \left(\frac{-13}{19}\right) \times \left(\frac{-13}{19}\right)$

- (i)  $\left(\frac{-15}{19}\right)^5$  (ii)  $\left(\frac{-13}{19}\right)^4$  (iii)  $\left(\frac{-13}{19}\right)^6$  (iv)  $\left(\frac{-13}{19}\right)^5$  (v)  $\left(\frac{-11}{19}\right)^5$

14. Which of the following statements are true?

a)  $a^m \cdot a^n = a^{mn}$

b)  $(x^m)^n = (x^n)^m$

c)  $a \cdot x^m = a^m \cdot x^m$

d)  $(x^m)^n = x^{(m+n)}$

e)  $\frac{x^m}{x^n} = x^{\frac{m}{n}}$

f)  $a^0 = 1$  ( $a \neq 0$ )

- (i) {c,f} (ii) {b,f} (iii) {a,b} (iv) {d,e,b} (v) {a,f,b}

15.  $-1^6 =$

- (i) 0 (ii)  $\infty$  (iii) 1 (iv) -1 (v) undefined

16.  $-1^7 =$

- (i) -1 (ii) 0 (iii) 1 (iv)  $\infty$  (v) undefined

17.  $8^0 =$

- (i) -1 (ii) 0 (iii) undefined (iv) 1 (v)  $\infty$

18.  $0^0 =$

- (i) -1 (ii) 1 (iii) undefined (iv) 0 (v)  $\infty$

19.  $-10^0 =$

- (i) 0 (ii) undefined (iii) 1 (iv)  $\infty$  (v) -1

20.  $0^5 =$

- (i) -1 (ii) undefined (iii)  $\infty$  (iv) 1 (v) 0

21.  $29c^2 =$

- (i)  $29 \times c \times c$  (ii)  $32 \times c \times c$  (iii)  $29 \times c \times c \times c$  (iv)  $29 \times c$  (v)  $26 \times c \times c$

22.  $6p^3q^4 =$

- (i)  $6 \times p \times p \times p \times q \times q \times q \times q$  (ii)  $9 \times p \times p \times p \times q \times q \times q \times q$  (iii)  $6 \times p \times p \times p \times p \times q \times q \times q \times q$   
(iv)  $6 \times p \times p \times p \times q \times q \times q \times q$  (v)  $3 \times p \times p \times p \times q \times q \times q \times q$

23.  $f^3g^2h^4 =$

- (i)  $3 \times f \times f \times f \times g \times g \times h \times h \times h \times h$  (ii)  $f \times f \times g \times g \times h \times h \times h \times h$  (iii)  $f \times f \times f \times f \times g \times g \times h \times h \times h \times h$   
(iv)  $f \times f \times f \times g \times g \times h \times h \times h \times h$  (v)  $-2 \times f \times f \times f \times g \times g \times h \times h \times h \times h$

24.  $d \times d \times d \times d =$

- (i)  $-2d^4$  (ii)  $3d^4$  (iii)  $d^4$  (iv)  $d^5$  (v)  $d^3$

25.  $b \times b \times b \times b \times c \times c \times c \times c =$

- (i)  $3b^4c^4$  (ii)  $b^3c^4$  (iii)  $-2b^4c^4$  (iv)  $b^4c^4$  (v)  $b^5c^4$

26.  $10 \times h \times h \times h \times i \times i \times i \times j \times j =$

- (i)  $10h^3i^3j^2$  (ii)  $10h^4i^3j^2$  (iii)  $8h^3i^3j^2$  (iv)  $10h^2i^3j^2$  (v)  $12h^3i^3j^2$

27. The expanded form of  $(-3q)^3$  is

- (i)  $(-3q) \times (-3q) \times (-3q) \times (-3q) \times (-3q)$  (ii)  $(-3q)$  (iii)  $(-3q) \times (-3q) \times (-3q)$   
(iv)  $(-3q) \times (-3q) \times (-3q) \times (-3q)$  (v)  $(-3q) \times (-3q)$

28. The expanded form of  $(\frac{1}{3}v)^3$  is

- (i)  $\frac{1}{3}v \times \frac{1}{3}v \times \frac{1}{3}v \times \frac{1}{3}v \times \frac{1}{3}v$  (ii)  $\frac{1}{3}v$  (iii)  $\frac{1}{3}v \times \frac{1}{3}v$  (iv)  $\frac{1}{3}v \times \frac{1}{3}v \times \frac{1}{3}v$  (v)  $\frac{1}{3}v \times \frac{1}{3}v \times \frac{1}{3}v \times \frac{1}{3}v$

29. The expanded form of  $(wx)^3$  is

- (i)  $wx \times wx \times wx \times wx \times wx$  (ii)  $wx \times wx \times wx \times wx$  (iii)  $wx \times wx \times wx$  (iv)  $wx$  (v)  $wx \times wx$

30. The expanded form of  $(\frac{1}{4}xy)^3$  is

- (i)  $\frac{1}{4}xy$  (ii)  $\frac{1}{4}xy \times \frac{1}{4}xy \times \frac{1}{4}xy \times \frac{1}{4}xy$  (iii)  $\frac{1}{4}xy \times \frac{1}{4}xy \times \frac{1}{4}xy \times \frac{1}{4}xy \times \frac{1}{4}xy$  (iv)  $\frac{1}{4}xy \times \frac{1}{4}xy \times \frac{1}{4}xy$  (v)  $\frac{1}{4}xy \times \frac{1}{4}xy$

31. The expanded form of  $(5b+3c)^3$  is

- (i)  $(5b+3c)$  (ii)  $(5b+3c) \times (5b+3c)$  (iii)  $(5b+3c) \times (5b+3c) \times (5b+3c) \times (5b+3c)$   
(iv)  $(5b+3c) \times (5b+3c) \times (5b+3c) \times (5b+3c) \times (5b+3c)$  (v)  $(5b+3c) \times (5b+3c) \times (5b+3c)$

## Assignment Key

1) (v)	2) (i)	3) (v)	4) (v)	5) (v)	6) (ii)
7) (ii)	8) (iv)	9) (v)	10) (i)	11) (v)	12) (iv)
13) (iv)	14) (ii)	15) (iii)	16) (i)	17) (iv)	18) (iii)
19) (iii)	20) (v)	21) (i)	22) (iv)	23) (iv)	24) (iii)
25) (iv)	26) (i)	27) (iii)	28) (iv)	29) (iii)	30) (iv)
31) (v)					