

**BAL BHARATI PUBLIC SCHOOL(GRHM)**  
**CLASS VII**  
**ASSIGNMENT NO.6**  
**SUMMATIVE ASSESSMENT - I**  
**MATHEMATICS**  
Exponents

Q1) Value of  $-5$  raised to the power of  $4$  is :

- (a)  $-625$  (b)  $25$  (c)  $-125$  (d)  $625$

Q2)  $(-1)^{31}$  equals to :

- (a)  $31$  (b)  $-1$  (c)  $1$  (d)  $-31$

Q3) What power of  $-3$  is  $729$ ?

- (a)  $3$  (b)  $4$  (c)  $6$  (d)  $5$

Q4) Value of  $(-1)^{15} \times (-1)^{16}$  equals to;

- a)  $1$  b)  $-1$  c)  $-240$  d)  $240$

Q5) If  $2^4 + 3^2 = 5^x$  then  $x$  equals :

- a)  $1$  b)  $2$  c)  $3$  d)  $4$

Q4) Use power notation to express each of the following:

(a)  $(-2/3) \times (-2/3) \times (-2/3) \times (-2/3)$

(b)  $m \times m \times m \times m \times m \times m$

(c)  $5 \times 5 \times 5 \times 5 \times 5 \times 5$

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$5 \times 5 \times 5 \times 5$

Q5) Express each of the following in exponential form:

- (a)  $1024$  (b)  $-100000$  (c)  $1331/343$  (d)  $-1/125$

Q6) Evaluate ; (a)  $(3)^6 - (2)^5$  (b)  $4^3 + 5^3$  (c)  $8^3 \times 2^4$  (d)  $3^7 \div 9^2$

(e)  $\frac{3^5 \times 4^7}{6^3 \times 8}$  (f)  $(5^3 \times 2^3) \div (5^2 \times 2)$  (f)  $(3/2)^5 \times 16 \times (2/3)^4$

(g)  $(4/7)^2 \times (1/5)^2 \times 35/64$  (h)  $(1/3)^4 \times (-27/4)^2 \times (-8/3)^2$

$$(i) [ (1/4)^3 ]^2 \div [ (1/4)^2 ]^3 \quad (j) \frac{4^2 \times 4^3}{2^6} \quad (k) (-1/3)^2 \times (-1/3)^3 \times (-1/3)^0$$

Q7) Which is greater : (a)  $3^6$  or  $6^3$ ? (b)  $-(5^2)$  or  $(-5)^2$  ?

Q8) Express each of the following as product of powers of prime factors:

$$(a) 81 \times 128 \quad (b) 256 \times 121$$

Q9) Find the value of x:

a)	$\{(3)^3\}^7 = (3)^{7x}$
b)	$(-2)^{11} \div (-2)^9 = (-2)^{2x}$

Q10) Using laws of exponents simplify:  $(a^5 x b^3 x b^6) \div (a^2 b^2)$

Q11) Express the following in standard form: (i) 782000000 (ii) 609.99  
 (iii)  $0.234 \times 10^5$  (iv) 5 million

Q12) Write in usual form: (i)  $9.876 \times 10^6$  (ii)  $1.3 \times 10^9$

Q13) Convert into positive power and then solve:

a)  $(5/6)^{-2} \times (5/6)^{-4}$

b) In the above question we have converted negative into positive. How can you convert your negative approach or attitude into positive approach. Give examples.