INDIAN SCHOOL AL WADI AL KABIR
Class VIII, Mathematics
Topic: EXPONENTS & POWERS
(M.C.Q & DESCRIPTIVE), **06-04-2020**

Department of Mathematics

MULTIPLE CHOICE QUESTIONS

Q.1. The value of ($4^0 + 3^0 + 5^0$) is

(A)	1	(B)	0	(C)	3	(D)	10

Q.2. The standard form of 0.000095883

(A)	0.95883×10^{-5}	(B)	9.5×10^5	(C)	9.5883×10^{-9}	(D)	9.5883×10^{-5}

Q.3. The multiplicative inverse of 3^{-4}

(A)	$\dfrac{1}{3^{-4}}$	(B)	$\dfrac{1}{3^4}$	(C)	3^{-4}	(D)	3^4

Q.4. The exponential form of $p^{-4} \times p^6$ is

(A)	p^{10}	(B)	p^2	(C)	p^{-2}	(D)	p^6

Q.5. 4^{-3} can be expressed as a power with base 2 as

(A)	2^{-6}	(B)	2^6	(C)	2^{-12}	(D)	2^{-8}

Q.6. The value of $\left(\dfrac{1}{3}\right)^{-3}$

(A)	9	(B)	27	(C)	$\dfrac{1}{27}$	(D)	1

Q.7.	The value equivalent to 6.009×10^{-4} is							
	(A)	0.0006009	**(B)**	0.6009	**(C)**	0.0069	**(D)**	0.00069
Q.8.	The usual form of 1.001×10^6 is							
	(A)	1001	**(B)**	1100000	**(C)**	1001000	**(D)**	1010000

DESCRIPTIVE TYPE QUESTIONS

Q.9.	Simplify and express in power notation with positive exponent: $(5^{-7} \div 5^{-10}) \times 5^{-6}$.	Ans: $\dfrac{1}{5^3}$
Q.10.	Find 'm' so that $(3)^{m+1} \times (3)^5 = (3)^{13}$.	Ans: m=7
Q.11.	Find the value of : $\left(\dfrac{1}{4}\right)^{-2} + \left(\dfrac{1}{5}\right)^{-2} + \left(\dfrac{1}{2}\right)^{-2}$.	Ans:45
Q.12.	Write the two given numbers in standard form and compare it: 0.000000001784 and 0.00000000004982	Ans: 0.000000001784 is greater
Q.13.	Find the value of: $\left[\left\{\left(-\dfrac{1}{2}\right)^2\right\}^{-2}\right]^{-1}$.	Ans: $\dfrac{1}{16}$
Q.14.	Write the steps involved in finding the value of K, if 24780000000 is written of the form $k \times 10^n$ with n=9.	Ans:k=24
Q.15.	Evaluate: $\dfrac{8^{-1} \times 5^4}{2^{-6}}$.	Ans:$2^3 \times 5^4$
Q.16.	Simplify: $\dfrac{125 \times p^{-4}}{5^{-5} \times 10 \times p^{-10}}$, $(p \neq 0)$.	Ans: $\dfrac{5^7 \times p^6}{2}$

Q.17.	Express the power a rational number with negative exponent: $\left(\left(-\frac{3}{2} \right)^{-2} \right)^{-3}.$	Ans: $\left(-\frac{2}{3} \right)^{-6}$
Q.18.	Simplify and write the answer in exponential form: $(2^5 \div 2^8)^5 \times 2^{-5}.$	Ans: 2^{-20}
Q.19.	Evaluate : $\left(\frac{7}{9} \right)^{-6} \times \left(\frac{9}{7} \right)^{-4}.$	Ans: $\left(\frac{9}{7} \right)^2$
Q.20.	Simplify: $\dfrac{49 \times 8 \times 25^{-2} \times z^{-3}}{7^{-8} \times 10 \times 5^{-6} \times z^{-10}}, z \neq 0.$	Ans: $7^{10} \times 2^2 \times 5 \times z^7$
Q.21.	Find 'y', so that $\left(\frac{5}{11} \right)^{-3} \times \left(\frac{5}{11} \right)^5 = \left(\frac{5}{11} \right)^y.$	Ans: $\left(\frac{5}{11} \right)^2$
Q.22.	Find the value of :$\left\{ \left(\frac{1}{5} \right)^{-1} - \left(\frac{1}{6} \right)^{-1} \right\}.$	Ans: -1
Q.23.	Express each of the following in standard form: (i) Thickness of a piece of paper is 0.000016 m. (ii) Mass of a molecule of hydrogen gas is about 0.000000000000000000000334 tons.	Ans: (i)1.6×10^{-5}m (ii)3.34×10^{-21} tons
Q.24.	Simplify and express with positive exponents: $\left(\frac{2}{7} \right)^{-4} \div \left(\frac{2}{7} \right)^{-8}$	Ans: $\left(\frac{7}{2} \right)^{-4}$
Q.25.	Simplify : $\dfrac{125 \times 10^{-5} \times 3^{-5}}{5^{-7} \times 6^{-5}}.$	Ans: 5^5