

**Written Task - 1 Mathematics****Name:****Grade : 8****Maximum Marks : 20****Date : 12 Oct 2020****Prepared By: Mukesh Shukla****Q 1: Match The Followings:**

Exponent		Equivalent Value
2^{-8}		1
7^{-3}		$\frac{1}{256}$
4^{-3}		$\frac{1}{7^3}$
6^0		$\frac{1}{64}$

Q 2: Simplify $5^3 \cdot 5^{-5}$

(a) $\frac{1}{25}$

(b) 25

(c) 125

(d) $\frac{1}{125}$

Q 3: Simplify $\frac{y^{-6}}{y^{-10}}$

(a) $\frac{1}{y^4}$

(b) y^4

(c) y^8

(d) y^{-8}

Q 4: Write 5.34×10^4 in standard form

(a) 5,340

(b) 0.000534

(c) 53,400

(d) 0.00534

Q.5: Write 2.52×10^{-5} in standard form

(a) 252000

(b) 2520

(c) 0.00252

(d) 0.0000252

Q.6: Write 43000 in scientific notation

(a) 4.3×10^{-4}

(b) 4.3×10^4

(c) 0.43×10^{-4}

(d) 0.43×10^4

Q.7: Simplify and write in scientific notation $(3 \times 10^3)(5 \times 10^2)$

- (a) 15×10^5 (b) 7×10^6 (c) 7×10^5 (d) 1.5×10^6

Q.8: Simplify and write in scientific notation $(7.2 \times 10^3)(1.6 \times 10^4)$

- (a) 1.152×10^8 (b) 2.531×10^8 (c) 3.152×10^8 (d) 2.125×10^8

Q.9: Simplify and write in scientific notation $(6.89 \times 10^4) + (9.24 \times 10^5)$

- (a) 7.713×10^8 (b) 8.843×10^6 (c) 9.929×10^5 (d) 7.831×10^9

Q10: Simplify and write in scientific notation $\frac{8.37 \times 10^8}{2.7 \times 10^3}$

- (a) 2.6×10^{11} (b) 3.1×10^5 (c) 5.2×10^3 (d) 1.7×10^6

Q11: Simplify and write in scientific notation $\frac{6 \times 10^8}{3 \times 10^4}$

- (a) 8×10 (b) 2×10^4 (c) 9×10^4 (d) 2×10^8

Q.12: Find $\sqrt[3]{-27}$

- (a) 3 (b) 9 (c) -3 (d) -9

Q.13: Find $\sqrt{64}$

- (a) 4 (b) 16 (c) 32 (d) 8

Q. 14: The volume of the cube is 729 cubic cm .Find the side length of the box.

- (a) 9 c.m. (b) 7 c.m. (c) 13 c.m. (d) 8 c.m.

Q. 15: Estimate $\sqrt{83}$ **to the nearest integer**

- (a) 5 (b) 15 (c) 25 (d) 9

Q.16: Order the set $\{7, \sqrt{53}, \sqrt{32}, 6\}$ from least to greatest

- (a) $\{\sqrt{32}, 6, 7, \sqrt{53}\}$ (b) $\{7, \sqrt{53}, \sqrt{32}, 6\}$ (c) $\{\sqrt{53}, 7, \sqrt{32}, 6\}$ (d) $\{6, \sqrt{32}, \sqrt{53}, 7\}$

Q.17: Solve $t^2 = 169$

- (a) 7, -7 (b) 11, -11 (c) 13, -13 (d) 10, -10

Q.18: Classify the following real numbers as rational numbers or irrational numbers

π

$\sqrt{52}$

$\frac{2}{5}$

85%

5.68

$0.\bar{2}$

-12

$\sqrt{25}$

$\sqrt[3]{81}$

Rational Number	Irrational Number

Q.19: Estimate $\sqrt{130}$ to the nearest tenth

- (a) 6.5 (b) 11.4 (c) 11.9 (d) 10.9

Q.20: Fill in the blanks to simplify each expression:

(i) $s^{-3} \cdot s^4 \cdot s^{-5} = s^{\text{Typ}}$

(ii) $z^{-3} \cdot z^{-2} \cdot z^{-1} = z^{\text{Typ}}$

(iii) $m^{-2} \cdot m^6 \cdot m = m^{\text{Typ}}$

(iv) $\frac{b^{-3} \cdot b^{-4}}{b^{-7}} = b^{\text{Ty}} = \text{Ty}$