Subject: - Mathematics **PRACTICE PAPER** **CBSE-8th**

Topic: - Power & Exponents

1. Simplify:

i) $(2^{-1}) \div (5^{-1})^2 \times \left(-\frac{5}{8}\right)^{-1}$ **Ans. – 10**

2. By what no. should 5^{-1} be multiplied so that the product may be equal to $(-7)^{-1}$? **Ans.** $-\frac{5}{7}$

3. If $x = \left(\frac{3}{2}\right)^2 \times \left(\frac{2}{3}\right)^{-4}$, find the value of x^{-2}. **Ans.** $\left(\frac{2}{3}\right)^{12}$

4. Simplify: -

i) $\left\{\left(\frac{2}{3}\right)^2\right\}^3 \times \left(\frac{1}{3}\right)^{-4} \times 3^{-1} \times 6^{-1}$ **Ans.** $\frac{32}{81}$

5. Express $\left\{\left(\frac{3}{2}\right)^4\right\}^{-2}$ rational numbers with a positive exponent. **Ans.** $\left(\frac{2}{3}\right)^8$

6. By what number should $\left(-\frac{3}{2}\right)^{-3}$ be divided so that the quotient may be $\left(\frac{4}{27}\right)^2$? **Ans.** $\frac{-27}{2}$

7. Find *m* so that $\left(\frac{2}{9}\right)^3 \times \left(\frac{2}{9}\right)^{-6} = \left(\frac{2}{9}\right)^{2m-1}$ **Ans.** $m = -1$

8. Express the number appearing in the following statements in standard form:

i) Charge of an electron is 0.0000000000000000016 coulombs. **Ans.** 1.6×10^{-18} **C**

ii) 1 micron is equals to $\frac{1}{1000000}$ metre. **Ans.** 10^{-6}**metre**

9. If the diameters of the Sun and the Earth are 1.4 x 10^9 metres and 1.275 x 10^7 metres respectively. Compare these two. **Ans. 100(approx.)**

10. The size of a red blood cell is 0.000007 m and the size of a plant cell is 0.00001275 m. Compare these two. **Ans. 0.5(approx.)**