Chapter 13: Exponents and Powers. (Practice)

1) Express 256 as a power 2

2) Which one is greater 2^3 or 3^2?

3) Which one is greater 8^2 or 2^8?

4) Expand a^3b^2, a^2b^3.

5) Express as product of prime factors (i) 432 (ii) 1000

6) Find the value of $(-5)^4$, $(-1)^4$, $(-1)^3$, $(1)^5$

7) Which one is greater $5^2 \times 3$ or $(5^2)^3$

8) Express in following in exponential form: (i) $(2\times3)^5$ (ii) $(2a)^4$

9) Expand (i) $\left(\frac{3}{5}\right)^4$ (ii) $\left(\frac{4}{7}\right)^5$

10) Write the exponential form for $8\times8\times8\times8$ taking base as 2.

11) Simplify in exponential form (i) $\left(\frac{3^7}{3^2}\right) \times 3^5$ (ii) $8^2 \div 2^3$.

12) Simplify: (i) $\frac{12^4 \times 9^3 \times 4}{6^3 \times 8^2 \times 27}$ (ii) $2^3 \times 9^3 \times 5a^2$ (iii) $\frac{2\times3^4 \times 2^5}{9 \times 4^2}$

13) Express in the standard form: (i) 5985.3 (ii) 3,430,000

14) Write the standard form of 8536.7 ?

15) Express 648 as a product of prime factors and write in exponential form.

16) Simplify using the laws of exponents: $\frac{2^6 \times 9^7 \times 5^4 \times 5^5}{10^3 \times 5^2 \times 9^6}$

17) Evaluate: $\frac{2^2+3^0}{(4^3 \times 8)^0} + \frac{1}{2}$

18) Express 768 as a product of prime factors in exponential form.

18) Simplify: $\frac{3^3 \times 64 \times 81}{18 \times 4^2 \times 3^5}$