



**Octahedral classes, kharadi**  
2nd floor, yashwant plaza, near bank of India,

**Class 08 - Mathematics**  
**Exponent and rational no**

**Maximum Marks: 30**

**Time Allowed: 1 hour and 30 minutes**

**Section A**

1. Find the multiplicative inverse of the following :  $\frac{-5}{8} \times \frac{-3}{7}$  1
2. Subtract the first rational number from the second 1
  - a.  $\frac{3}{8}, \frac{5}{8}$
  - b.  $\frac{-8}{33}, \frac{-7}{22}$
3. Find a rational number between -3 and 1. 1
4. Compare the rational numbers. 1
  - a.  $\frac{-9}{27}, \frac{6}{-18}$
  - b.  $\frac{5}{7}, \frac{10}{-6}$
5. Find using distributivity :  $\left\{ \frac{9}{16} \times \frac{4}{12} \right\} + \left\{ \frac{9}{16} \times \frac{-3}{9} \right\}$  1
6. Arrange in ascending order 2  
 $\frac{-10}{11}, \frac{-19}{22}, \frac{-23}{33}$  and  $\frac{-39}{44}$ .
7. Verify and name the property used 2  
 $\left( \frac{-3}{5} \times \frac{12}{13} \right) \times \frac{7}{8} = \frac{-3}{5} \times \left( \frac{12}{13} \times \frac{7}{8} \right)$  .
8. The product of two rational numbers is 18. If one of the numbers is -12, find the other. 2
9. Find the value of :  $(2^{-1} \times 4^{-1}) \div 2^{-2}$  1
10. Simplify and write in exponential form :  $(-2)^{-3} \times (-2)^{-4}$  1
11. Write 16250000000 in standard form. 1
12. Simplify and express the result in power notation with positive exponent: 1  
 $(-3)^4 \times \left( \frac{5}{3} \right)^4$
13. Simplify and express the result in power notation with positive exponent.  $2^{-3} \times (-7)^{-3}$  1
14. Find the value of :  $[3^{-1} + 4^{-1} + 5^{-1}]^0$  2

15. Solve:  $(-3)^4 \times \left(\frac{5}{3}\right)^4$
16. Find x, if  $6^{2x} \div 6^{-4} = 36$ . 2
17. Simplify and express the result in power notation with positive exponent.  $(-4)^5 \div (-4)^8$  2
18. Find the value  $(2^{11} + 3^2 - 5^1)^0$ . 2
19. Solve for x: 2  
 $3^{2x+3} = 27^{x+4}$
20. Evaluate :  $\left(\frac{5}{8}\right)^{-7} \times \left(\frac{8}{5}\right)^{-4}$  2