

**DELHI PUBLIC SCHOOL, JAMMU**  
**REVISION SHEET FOR CYCLE TEST-I**  
**SESSION (2018-19)**

**Class: VIII**

**Subject: Maths**

**SYLLABUS: Ch- Rational No's, Ch- Exponents & Powers**

**Ch- Square & Square Roots, Ch- Cubes & Cube Roots**

**SECTION- A**

- Q1.** The multiplicative inverse of  $\frac{1}{4} \times \frac{2}{5}$  is  
a)  $\frac{1}{10}$                       b) 10                      c) 1                      d) does not exist.
- Q2.** The product of additive inverse and multiplicative inverse of -7.  
a) 1                      b) -1                      c) 0                      d) 7
- Q3.** The value of  $\{(-3)^{-2}\}^{-3}$  is  
a) -727                      b) 243                      c) 729                      d)  $\frac{1}{729}$
- Q4.** value of  $x+x(x)^x$  when  $x = 2$  is  
a) 16                      b) 10                      c) 18                      d) 36
- Q5.** The area of rectangle is  $45\frac{5}{16}$  cm<sup>2</sup>. If one edge is  $6\frac{1}{4}$  cm is  
a)  $7\frac{1}{4}$ .                      b)  $22\frac{1}{2}$                       c)  $12\frac{1}{2}$                       d) none of these.
- Q6.** The value of  $\sqrt{\frac{289}{484}}$  is  
a)  $\frac{7}{18}$                       b)  $\frac{17}{22}$                       c)  $\frac{19}{20}$                       d)  $\frac{7}{22}$
- Q7** The cube root of  $-\frac{512}{125}$  is  
a)  $\frac{8}{5}$                       b)  $\frac{-8}{5}$                       c)  $\frac{4}{5}$                       d)  $\frac{-4}{5}$

**SECTION -B**

- Q8.** Find the smallest number by which the given number must be divided so as to get a perfect square.  
Also find the square root of the number so obtained. (a) 140                      (b) 624                      (c) 396
- Q9** Find the number by which the given number must be multiplied so as to make them a perfect sq. Also  
Find the square root of number so obtained.                      (a) 720                      (b) 2475                      (c) 2475
- Q10.** If  $7^{2x+1} \div 49 = 7^3$  find the value of x.
- Q11.** Divide the sum of  $2\frac{1}{4}$  and  $5\frac{1}{5}$  by the product of  $2\frac{1}{4}$  and  $\frac{2}{3}$ ?
- Q12.** If  $x = \frac{2}{3}$ ,  $y = \frac{4}{5}$ ,  $z = \frac{3}{4}$  Show that  $x \div (y + z) \neq (x \div y) + (x \div z)$
- Q13.** If  $5^{2x+1} \div 25 = 125$ , find x?
- Q14.** Simplify  $\left[\left(\frac{2}{3}\right)^2\right]^3 \times \left(\frac{1}{3}\right)^{-2} \times 3^{-1} \times \frac{1}{6}$  ?
- Q15.** Find the least number which must be added to 306452 to make it a perfect square?
- Q16.** Find the least number which must be subtracted from 18265 to make it a perfect square?

**SECTION-C**

- Q17.** Find the square root of the following:  
(i) 103684                      ii) 249001

- Q18.** Find the cube roots of the following:  
 i)  $-226981$                       ii)  $-13824$
- Q19.** Find the cube roots of the following:  
 i)  $\frac{9261}{42875}$                       ii)  $\frac{343}{166375}$
- Q20.** What number should be added to  $-\frac{7}{8}$  so as to get  $\frac{5}{9}$  ?
- Q21.** How many numbers lie between squares of the numbers 79 and 80?

**Q22.** Divide the following:

- i)  $\frac{2}{3}$  by  $\frac{-4}{5}$   
 ii)  $-4$  by  $\frac{-3}{5}$

**Q23.** Simplify:

- i)  $\left(\frac{3}{2}\right)^{-2} \times \left(\frac{3}{2}\right)^{-3} \times \left(\frac{3}{2}\right)^5$   
 ii)  $(2^{-1} \div 5^{-1})^2 \times \left(\frac{-5}{8}\right)^{-1}$

**Q24.** Find the reciprocal of the rational number  $\left(\frac{1}{2}\right)^{-2} \div \left(\frac{2}{3}\right)^{-3}$

**Q25.** Find the least perfect square number which is exactly divisible by each of the numbers 8, 12, 15 and 20?

**Q26.** Find the square root of 17 upto three decimal places.

**Q27.** Find the cube roots of the following negative numbers:

- i)  $-125$                       ii)  $-216$                       iii)  $-5832$                       iv)  $-32768$

#### SECTION -D

**Q28.** Find the cube roots of the following:

- i)  $0.001728$                       ii)  $0$                       iii)  $0.068921$

**Q29.** Find a rational number between  $\frac{4}{5}$  and  $\frac{7}{6}$  ?

**Q30.** For  $x = \frac{4}{7}$  and  $y = \frac{3}{13}$  verify that  $(x \times y)^{-1} = x^{-1} \times y^{-1}$

**Q31.** The cost of  $5\frac{1}{6}$  m of wire is Rs.  $21\frac{3}{4}$  . What is the cost of 1m of wire?

**Q32.** How many pieces of ribbon of length  $6\frac{2}{3}$  cm can be cut off from a ribbon of length 1.20m?

**Q33.** Write the following in usual form:

- i)  $6.5 \times 10^{-6}$                       ii)  $1.001 \times 10^9$

**Q34.** Write the following in standard form:

- i)  $4340000$                       ii)  $124000$                       iii)  $0.4579$                       iv)  $0.00004$

**Q35.** Find the squares of the following by using diagonal method:

- i)  $256$                       ii)  $548$                       iii)  $212$                       (i)135

**Q36.** Find the square root of following by Prime factorisation method:

- i)  $1764$                       ii)  $9801$

**Q37.** Find the cubes and square of the following by column method:

- i)  $45$                       ii)  $81$                       iii)  $20$                       iv)  $61$

**Q38.** Find the greatest 5 digit number that is a perfect Square:

**Q39.** Find the least 6 digit number that is a perfect Square:

**Q40.** Find the Square Root of the following by Long Division Method:

- a)  $627264$                       b)  $793881$                       c)  $209764$                       d)  $207936$