

# DELHI PUBLIC SCHOOL, JAMMU

## REVISION SHEET FOR CYCLE TEST-I

### SESSION-2018-2019

**Class - VII**

**Subject – Maths**

**Syllabus: Ch.1: Integers, Ch.2: Fractions and Decimals, Ch.9: Rational Numbers**

**Ch.13: Exponents and Powers**

#### SECTION - A

- Q1. On subtracting  $(-14)$  from  $(-8)$ , we get  
 a)  $-6$                       b)  $-24$                       c)  $6$                       d)  $24$
- Q2. The area of square with each side  $3.07\text{m}$  is  
 a)  $94.249\text{m}^2$                       b)  $9.4249\text{m}$                       c)  $1.3690\text{m}^2$                       d)  $9.4249\text{m}^2$
- Q3. Which is smaller out of  $\frac{5}{-6}$  and  $\frac{-7}{12}$   
 a)  $\frac{5}{-6}$                       b)  $\frac{-7}{12}$                       c) both are equal                      d) cannot be compared
- Q4. The diameter of earth  $2,27,56,000\text{m}$  can be expressed in exponential form as  
 a)  $2.2756 \times 10^6$                       b)  $22.756 \times 10^7\text{m}$                       c)  $2.2756 \times 10^7\text{m}$                       d)  $227.56 \times 10^6\text{m}$
- Q5.  $\left(\frac{1}{4}\right)^{6-2 \times 3} = ?$   
 a)  $\left(\frac{1}{4}\right)^{12}$                       b)  $\left(\frac{-1}{4}\right)^2$                       c)  $\frac{-1}{16}$                       d)  $1$
- Q6.  $30 \times (-23) + 30 \times 14 = ?$   
 a)  $-270$                       b)  $270$                       c)  $1110$                       d)  $-1110$

#### SECTION- B

- Q7: Write down a pair of integers whose  
 (a) Sum is  $-5$     (b) difference is  $-9$     (c) product is  $-20$     (d) quotient is  $-3$
- Q8: Verify  $a + b = a - (-b)$   
 (a)  $a = 3, b = -5$                       (b)  $a = -4, b = -3$
- Q9: If the cost of an article is Rs.  $32.50$ , find the cost of  $24$  such articles.
- Q10: By what number should  $10\frac{2}{3}$  be divided to obtain  $20$ ?
- Q11: Evaluate:  
 (a)  $1243 \times 99 - (-1243)$                       (b)  $\{105 \div (-7)\} \div \{(-85) \div 17\}$   
 (c)  $50 \div 0$                       (d)  $1806 \times 889 - 806 \times 889$   
 (e)  $-20 + (-15) - (-31) + (-18)$                       (f)  $(-14) - (-141) - 50 - 86 + 144 - (-48)$   
 (g) Predecessor of  $-40$                       (h)  $4.36 \times 0.09$   
 (i)  $217.35 \div 6.3$                       (j)  $7804.5 \div 104.06$
- Q12: Find an integer which when multiplied by  $-1$  and divided by  $-9$  results into reciprocal of that integer.
- Q13: By how much does  $5$  exceed  $-3$ .
- Q14: How much less than  $-5$  is  $-8$ ?
- Q15: Evaluate  $2^5 \times 7^5$

### SECTION C

Q16: Find the value of m in each of the following:

(a)  $(\frac{2}{9})^{-3} \times (\frac{2}{9})^{-11} = (\frac{2}{9})^{7m}$

(b)  $(\frac{1}{5})^{-3} \times (\frac{1}{5})^{-5} = (\frac{1}{5})^m$

Q17: How many  $\frac{1}{100}$  together make 1?

Q18: Find a rational number such that its two-third is equal to  $\frac{8}{15}$ .

Q19: 1 kg of apple costs Rs. 56.80. What is the cost of 16.25 kg of apple?

Q20: A cloth merchant sells cloth at the rate of Rs.  $23\frac{3}{5}$  per metre. What is the cost of  $5\frac{3}{7}$  m of cloth?

Q21: In a class, there are 75 students. If  $\frac{2}{5}$  of the students are girls, find the number of boys and girls in the class.

Q22: Find the value of y in each of the following;

(a)  $27 \times 3^{y+1} = 729$

(b)  $[\frac{-1}{5}]^{y+1} \times [\frac{-1}{5}]^5 = [\frac{-1}{5}]^9$

Q23: Verify that  $a \div (b + c) \neq (a \div b) + (a \div c)$

(a)  $a = 14, b = 7, c = 4$

(b)  $a = 12, b = -2, c = -3$

### SECTION D

Q24: Sahil is in the process of making ice-cream. He heated all the ingredients to  $48^\circ\text{C}$  and put them in the refrigerator to freeze. If the cooling rate is  $8^\circ\text{C}$  per hour, what will be the temperature in freezer after 8 hours?

Q25: Divide the sum of  $\frac{3}{2}$  and  $\frac{5}{7}$  by their product.

Q26: Divide the sum of  $\frac{65}{9}$  and  $\frac{-11}{-3}$  by the sum of  $\frac{7}{6}$  and  $\frac{5}{-3}$ .

Q27: An elevator descends into a mine shaft at the rate of 6 m/min. If the descent starts from 30m above the ground level, how long will it take to reach 390m below ground level?

Q28: How many pieces of plywood, each 0.45 cm thick, are required to make a pile 2.34 m high?

Q29: Evaluate  $3\frac{3}{5} \div 2\frac{2}{3}$

Q30: Simplify: (a)  $[(27)^4 \times 3^8] \times 5^8$

(b)  $\frac{7^2 \times 11^6 \times 3}{11^3 \times 147}$

Q31: The sum of two rational numbers is  $-4$ . If one of the numbers is  $\frac{-11}{5}$ , find the other number.

Q32: Simplify: (a)  $(2 \times \frac{1}{4}) + [\frac{4}{5} + (\frac{3}{-2})]$

(b)  $[\frac{16}{8} \times (\frac{-24}{15})] - [8 \times (\frac{1}{-2})]$

Q33: Divide the sum of  $\frac{7}{8}$  and  $\frac{-3}{5}$  by  $\frac{1}{2}$ .

Q34: What should be subtracted from  $\frac{-3}{2}$  to get  $\frac{-41}{14}$ ?

Q35: The product of two rational numbers is  $\frac{-8}{9}$ . If one of the number is  $\frac{13}{11}$ , find the other number.

Q36: In a test (+4) marks are given for every correct answer and (-2) marks are given for every incorrect answer.

(a) Nihika answered all the questions and scored 20 marks and gets 10 correct answers.

(b) Jay also answered all the questions and scored (-10) marks though he got 5 correct answers. How many incorrect answers had they attempted.