



**INDIAN SCHOOL AL WADI AL KABIR**  
**Final Examination Revision Worksheet (2022-23)**

**Class: VII**

**Sub: MATHEMATICS**

**Max Marks: 80**

**Instructions:**

Section A: Multiple Choice Question (Q.1 to Q.5) & Source-based question (Q.6)

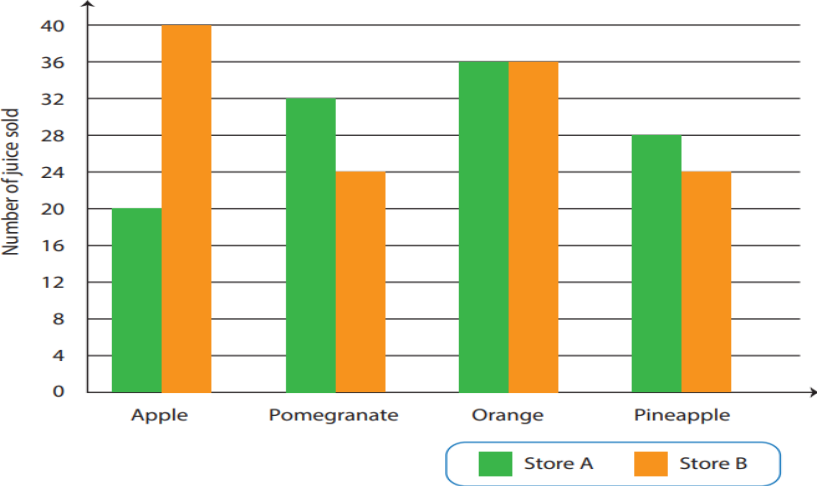
Section B: Short Answer Questions of 2 marks each (Q.7 to Q.15)

Section C: Long Answer Questions (Type – 1) of 3 marks each (Q.16 to Q.23)



Section D: Long Answer Questions (Type– 2) (Q.24 to Q.28) & Case study Question (Q.29 & Q.30) 4 marks each

**Section A: Multiple Choice Question (Q.1 to Q.5) of 1 mark each**

|            |  |                      |          |                    |          |                      |          |                   |
|------------|--|----------------------|----------|--------------------|----------|----------------------|----------|-------------------|
| <b>Q1.</b> | The Range of the data is 12, 13, 45, 15 and 19 is  |                      |          |                    |          |                      |          |                   |
|            | <b>A</b>   | 12                   | <b>B</b> | 13                 | <b>C</b> | 23                   | <b>D</b> | 33                |
| <b>Q2.</b> | The standard form of 7,040,000,000.  |                      |          |                    |          |                      |          |                   |
|            | <b>A</b>   | $7.0 \times 10^{15}$ | <b>B</b> | $7.04 \times 10^9$ | <b>C</b> | $7.0 \times 10^{11}$ | <b>D</b> | $7.2 \times 10^5$ |
| <b>Q3.</b> | The perimeter of a rectangle is 450cm and the length is 50cm, then the breadth is  |                      |          |                    |          |                      |          |                   |
|            | <b>A</b>   | 10 cm                | <b>B</b> | 12 cm              | <b>C</b> | 9 cm                 | <b>D</b> | 4cm               |
| <b>Q4.</b> | Anni, Bob, and Charlee appear in an interview for the single post of HR manager. What is the probability that Charlee is selected? |                      |          |                    |          |                      |          |                   |
|            | <b>A</b>   | $\frac{1}{3}$        | <b>B</b> | $\frac{2}{3}$      | <b>C</b> | $\frac{1}{2}$        | <b>D</b> | $\frac{2}{5}$     |
| <b>5Q.</b> | Out of 400 students, 280 went on a picnic. The percentage of students who went for a picnic is                                     |                      |          |                    |          |                      |          |                   |
|            | <b>A</b>   | 80%                  | <b>B</b> | 90%                | <b>C</b> | 70%                  | <b>D</b> | 50%               |

|   |   |        |  |        |          |             |          |                           |
|---|---|--------|--|--------|----------|-------------|----------|---------------------------|
| <b>Q6.</b>  | <b>Source-based questions:</b>  |        |  |        |          |             |          |                           |
|   | <p>Miss Clarie owns two juice shops. She records the juice sold in both shops in the bar graph. Answer the following questions.</p> |        |  |        |          |             |          |                           |
| <b>I</b>  | How many apple juices were sold by both shops?  |        |  |        |          |             |          |                           |
|   | <b>A</b>  | 20     | <b>B</b>   | 50     | <b>C</b> | 60          | <b>D</b> | 70                        |
| <b>II</b>   | Which juice was sold equally in store A and store B?  |        |  |        |          |             |          |                           |
|   | <b>A</b>  | Apple  | <b>B</b>   | Orange | <b>C</b> | Pomegranate | <b>D</b> | Pineapple                 |
| <b>III</b>  | What is the difference between pineapple juice sold in both shops?  |        |  |        |          |             |          |                           |
|   | <b>A</b>  | 5      | <b>B</b>   | 14     | <b>C</b> | 4           | <b>D</b> | 6                         |
| <b>IV</b>   | Which shop sold pomegranate juice more in number?   |        |  |        |          |             |          |                           |
|   | <b>A</b>  | Shop A | <b>B</b>   | Shop B | <b>C</b> | Can't say   | <b>D</b> | Both sold an equal number |
| <b>V</b>  | How many more Apple juices were sold by store B than by store A?  |        |  |        |          |             |          |                           |
|   | <b>A</b>  | 50     | <b>B</b>   | 30     | <b>C</b> | 20          | <b>D</b> | 40                        |
| <b>Section B: Short Answer Questions (Type – 1) of 2 marks each (Q.7 to Q.15)</b> |   |        |  |        |          |             |          |                           |
| <b>Q7.</b>  | Identify and show the terms and factors by tree diagrams in the expression $3x^2 - 5xy + 6$ .                                       |        |  |        |          |             |          |                           |
| <b>Q8.</b>  | Construct $\triangle DEF$ with sides $DE = 5.7\text{cm}$ , $EF = 6.3\text{ cm}$ , and $DF = 7.7\text{ cm}$ .                        |        |  |        |          |             |          |                           |
| <b>Q9.</b>  | Find the length of tape required to cover the edges of a semi-circular disc of diameter 14 cm.                                      |        |  |        |          |             |          |                           |
| <b>Q10.</b>   | Find the mean of the first five natural numbers.  |        |  |        |          |             |          |                           |
| <b>Q11.</b>   | If the population of a state increased from 5,50,000 to 6,05,000 in a year. Find the percentage of the increase in population.      |        |  |        |          |             |          |                           |
| <b>Q12.</b>   | Simplify: (i) $[(8)^0 + (3)^0] \times (7)^0$<br>(ii) $2^0 + 3^0 + 4^0$  |        |  |        |          |             |          |                           |

|  |   |
|--|---|
| <b>Q13.</b>  | Find the cost of planting grass in a parallelogram-shaped park of base 150m and height 200m at the rate of ₹5 per metre.  |
| <b>Q14.</b>  | Express $108 \times 125$ as a product of prime factors only in exponential form:  |
| <b>Q15.</b>  | A shopkeeper Sam sells a study table for ₹ 9,600 making a profit of 20%. What is the C.P. of the study table?   |
| <b>Section C: Long Answer Questions (Type – 1) of 3 marks each (Q.16 to Q.23)</b>                            |   |
| <b>Q16.</b>  | A bag contains 20 balls out of that there are 5 white balls and 9 red balls and the remaining are green balls. One ball is drawn at random from the bag.<br>Find the probability of getting<br>(a) a white ball<br>(b) a red ball<br>(c) a green ball |
| <b>Q17.</b>  | Simplify the expression $2 \times (8m^2 + 5) - 5m$ . Calculate the value of the expression if $m = 2$ .   |
| <b>Q18.</b>  | Heena borrowed ₹12,000 from the bank at the rate of interest as 14%. Find the simple interest and the total amount as has to pay after 3 years.   |
| <b>Q19.</b>  | A path 5 m wide runs along inside a square park of side 100 m. Find the area of the path. Also, find the cost of cementing it at the rate of ₹25 per $m^2$ .  |
| <b>Q20.</b>  | The weights (in kg) of 7 students of a class are 36, 42, 35, 37, 33, 31, 45<br>Find (i) Find the highest and lowest weight student in the class.<br>(ii) mean weight.   |
| <b>Q21.</b>  | Using laws of exponents, simplify and write the answer in exponential form:<br>(i) $(3^6 \times 3^4) \div 3^8$<br>(ii) $\frac{(5^5)^2 \times y^6}{y^2}$   |
| <b>Q22.</b>  | A rectangular lawn of length 70 m and breadth 50 m has two crossroads each 4 m wide running in the middle of it, one parallel to the length and another parallel to the breadth. Find the cost of leveling the roads at ₹50 per $m^2$ .               |
| <b>Q23.</b>  | Construct $\Delta PQR$ , Right-angled at Q, given that $PQ = 5.5$ cm and $QR = 7$ cm  |
| <b>Section D: Long Answer Questions (Type – 2)</b><br>(Q.24 to Q.28) & Case study (Q.29 &30) of 4 marks each |   |
| <b>Q24.</b>  | If $A = 3x^2 - 4x + 1$ , $B = 5x^2 + 3x - 8$ and $C = 4x^2 - 7x + 3$ , then<br>find: (i) $(A + B) - C$ (ii) $(C + A) - B$   |

|             |  |
|-------------|--|
| <b>Q25.</b> | The runs scored in a cricket match by 11 players is as follows:<br>7, 16, 120, 51, 101, 81, 1, 16, 9, 11, 16<br>Find the median, mode, and mean.   |
| <b>Q26.</b> | Construct $\Delta XYZ$ if it is given that $XY = 6.5$ cm, $m \angle ZXY = 60^\circ$ , and $m \angle XYZ = 40^\circ$ .  |
| <b>Q27.</b> | Simplify using the law of exponents:<br>(i) $\frac{27 \times 5^5 \times t^8}{15^3 \times t^4}$ (ii) $\frac{7^5 \times a^8 b^4}{7^3 \times a^4 b^4}$  |
| <b>Q28.</b> | (i) A cricket bat was purchased for ₹800 and was sold for ₹1000. Find the profit percentage earned.<br>(ii) Using triangle angle sum property, find the value of angles if angles of a triangle are in the ratio 2 : 3 : 4.  |
| <b>Q29.</b> | <p><b>CASE STUDY 1:</b></p> <p>Mr. Brand purchased a 3 BHK flat with a 12m long and 8m wide Hall room. For the floor, he purchased a rug circular in shape with a radius of 3m and a wall hanging triangular shape to decorate his new house.</p> <p>a) Find the area of Mr. Brand's Hall room.<br/>b) Find the circumference of the new rug purchased by Mr. Brand for the Hall room.<br/>c) Find the area occupied by the wall hanging if its base is 45cm and 24 cm high.<br/>d) Calculate the area covered by Rug.</p>    |
| <b>Q30.</b> | <p><b>CASE STUDY 2:</b></p> <p>Rohan's mother gave him ₹ <math>13xy^2 + 5</math> his father gave him ₹ <math>5xy^2 + 2</math> on his birthday. Rohan celebrated party with the money. Next day his Uncle visited his house and he also gave ₹ <math>5xy^2 + 2y + 6</math> money to him.</p> <p>a) How much total money he got it from his mother and father together?<br/>b) He spent ₹ <math>2 + 3xy^2</math> on his birthday party. How much money is left with him?<br/>c) Name the algebraic expression money given by uncle containing three terms.<br/>d) If <math>x = 5</math>, <math>y = 2</math>, then find the value of the amount he got from his uncle.</p>  |

## ANSWER KEY

|     |   |     |  |     |  |     |  |
|-----|---|-----|--|-----|--|-----|--|
| Q1  | D   | Q2  | B  | Q3  | C  | Q4  | A  |
| Q5  | C   | Q6  | I- 60<br>II- Orange juice<br>III- 4<br>IV- shop A<br>V-20 juice  | Q7  | Terms $3x^2, -5xy, 6$<br><br>Factor $3, x, x-5, x, y, 6$ | Q8  | -  |
| Q9  | 36cm  | Q10 | 3  | Q11 | 10%  | Q12 | (i) 2<br>(ii) 3                                      |
| Q13 | ₹ 1,50,000  | Q14 | $2^2 \times 3^3 \times 5^3$                                      | Q15 | ₹ 8,000  | Q16 | a- $\frac{1}{4}$ b- $\frac{9}{20}$ c- $\frac{3}{10}$ |
| Q17 | $16m^2 + 10 - 5m, 64$   | Q18 | ₹5,040 ₹17,040   | Q19 | 975 m <sup>2</sup> ₹<br>₹2,43,750                        | Q20 | i-42kg, 31 kg , ii-37 kg                             |
| Q21 | i- $3^2$ ii- $5^{10} \times y^4$  | Q22 | $464m^2$<br>₹23,200  | Q23 | -  | Q24 | i- $4x^2 + 6x - 10,$<br>ii- $2x^2 - 14x + 12$        |
| Q25 | Median - 16<br>Mode- 16<br>Mean-39  | Q26 | -  | Q27 | i- $5^2 \times t^4$<br>ii - $7^2 \times a^4$             | Q28 | i- 25%<br>ii- $40^\circ 60^\circ 80^\circ$           |
| Q29 | a- 96 m <sup>2</sup> , b-18.84 m, c- 540cm <sup>2</sup><br>d-28.26 m <sup>2</sup> | Q30 | a- ₹ $18xy^2 + 7$<br>b- ₹ $15xy^2 + 5$<br>c- trinomial<br>d-₹305 |     |  |     |  |
|     |   |     |  |     |  |     |  |