# INDIAN SCHOOL AL WADI AL KABIR

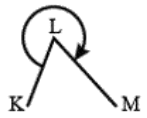
## MID TERM EXAMINATION (2024-25)

CLASS:VI **Mathematics - Set 2** Max. Marks: 80

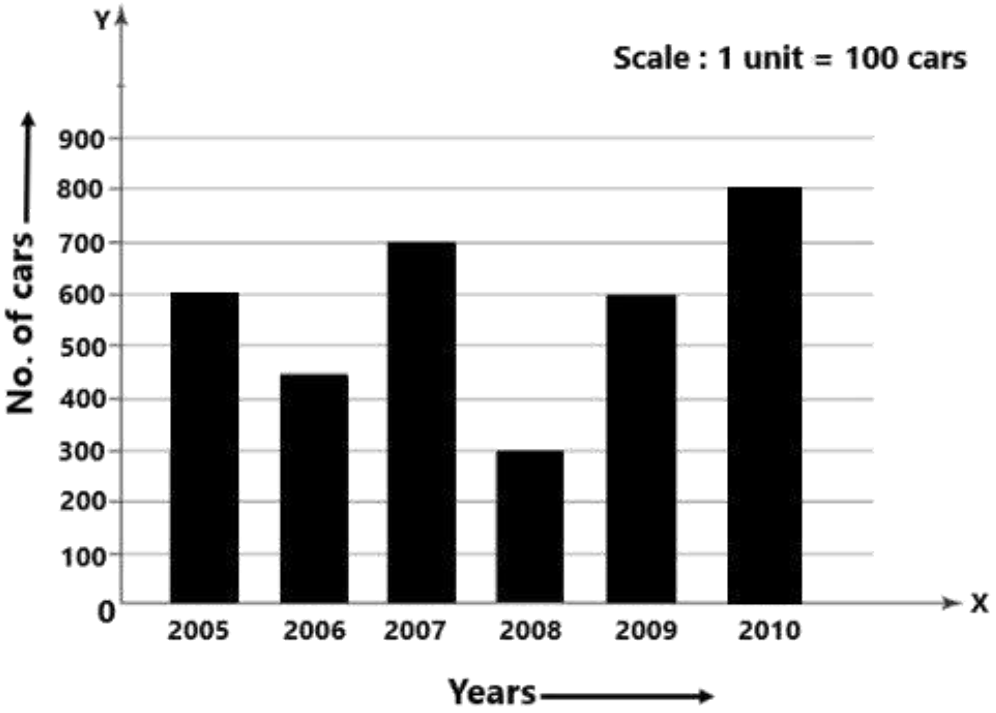
Date: 22/09/2024 **Marking Scheme** Time: $2\frac{1}{2}$ hours

***General Instructions*:**

1. This question paper contains 4 sections, Section A,B, C & D
2. All questions are compulsory.
3. Section A has 20 questions carrying 1 mark each.
4. Section B has 5 questions carrying 2 marks each.
5. Section C has 6 questions carrying 3 marks each.
6. Section D has 8 questions carrying 4 marks each.

| **Section A**: Multiple Choice Question (Q.1 to Q.15) of **1** mark each | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **1.** | In which of the following the correct prime factorization is done? | | | | | | | |
| | **A** | | **B** | | **C** | 45 = 3 x 3 x 5 | **D** | |
| **2.** | The Predecessor of 490099 is: | | | | | | | |
| | **A** | | **B** | | **C** | 490098 | **D** | |
| **3.** | Identify the type of angle marked in the given figure:   | | | | | | | |
| | **A** | | **B** | Reflex angle | **C** | | **D** | |
| **4.** | In which of the following numbers the digit 2 has the place value 20000? | | | | | | | |
| | **A** | 725401 | **B** | | **C** | | **D** | |
| **5.** | The side of a ruler is an example of: | | | | | | | |
| | **A** | | **B** | | **C** | line segment | **D** | |
| **6.** | Which of the following pairs of number are co-prime? | | | | | | | |
| | **A** | | **B** | | **C** | (12, 17) | **D** | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **7.** | Which property of whole numbers is shown here?<br>123 x (28 + 72) = (123 x 28) + (123 x 72) | | | | | | | |
| | **A** | | **B** | | **C** | Distributivity | **D** | |
| **8.** | An angle whose measure is between a right angle and a straight angle is called _____. | | | | | | | |
| | **A** | | **B** | | **C** | | **D** | obtuse angle |
| **9.** | The number of whole numbers between 56 and 83 is: | | | | | | | |
| | **A** | | **B** | 26 | **C** | | **D** | |
| **10.** | Michael scored a total of 32,292 points in a computer game. Rounding off the points to nearest hundreds is: | | | | | | | |
| | **A** | | **B** | 32300 | **C** | | **D** | |
| **11.** | The multiplicative identity for whole numbers is: | | | | | | | |
| | **A** | | **B** | 1 | **C** | | **D** | |
| **12.** | The numeral for eight million seventy-five thousand six hundred eighty is: | | | | | | | |
| | **A** | | **B** | | **C** | | **D** | 8,075,680 |
| **13.** | Which of the following number is divisible by 4? | | | | | | | |
| | **A** | 56724 | **B** | | **C** | | **D** | |
| **14.** | From the following a common multiple of 6 and 9 is: | | | | | | | |
| | **A** | | **B** | | **C** | 36 | **D** | |
| **15.** | Which of the following is the expanded form of the number 6,50,489 | | | | | | | |
| | **A** | | **B** | | **C** | 6 x 100000 +<br>5 x 10000 +<br>4 x 100 + 8 x 10<br>+ 9 x 1 | **D** | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **16.** | **Source based Question -5 Marks**<br>The following graph shows the number of cars manufactured by a factory in 6 years. Observe the graph and answer the questions given below:<br>  <br> | | | | | | |
| **I** | In which year maximum number of cars manufactured? | | | | | | |
| | **A** | | **B** | | **C** | **D** | 2010 |
| **II** | In which year the number of cars manufactured is minimum? | | | | | | |
| | **A** | | **B** | | **C** | 2008 | **D** |
| **III** | In which years equal number of cars manufactured? | | | | | | |
| | **A** | 2005, 2009 | **B** | | **C** | | **D** |
| **IV** | How many more cars manufactured in 2010 than in 2009? | | | | | | |
| | **A** | | **B** | | **C** | 200 | **D** |
| **V** | The difference between maximum and minimum number of car production is: | | | | | | |
| | **A** | 500 | **B** | | **C** | | **D** |
| **Section B**: Short Answer Questions (Type – 1) of **2** marks each (Q.17 to Q.21) | | | | | | | |

**17.** Add (5 + 3) using number line.

**Ans**: Number line (1m)

Showing addition by jumping and final answer (1m)

**18.** Find the smallest and greatest 6 – digit number that can be formed using the digits: 5,3,8,0,7,1

**Ans**: Greatest number: 875310……(1m)

Smallest number: 103578 ……..(1m)

**19.** Using protractor draw an angle of measure 50°.

**Ans**: Initial ray (½ m)

Correct measurement (1m), Final ray (½ m)

**20.** Simi collected 15 different leaves from a garden and wrote down their lengths, in cm. The results are given below. Prepare a frequency distribution table for the data.

**Ans:** (½ m) each for each frequency

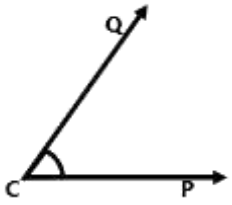
| Length in cm | Tally marks | Frequency |
|---|---|---|
| 2 | \|\|\| | 3 |
| 3 | \|\| | 2 |
| 4 | \|\|\|\| | 4 |
| 5 | 𝍸 \| | 6 |
| Total | | 15 |

| | | | | |
|---|---|---|---|---|
| 5 | 4 | 5 | 2 | 4 |
| 5 | 3 | 2 | 5 | 4 |
| 2 | 5 | 4 | 3 | 5 |

**21.** A) Draw and label an angle with vertex C and arms $\overrightarrow{CP}$ and $\overrightarrow{CQ}$.

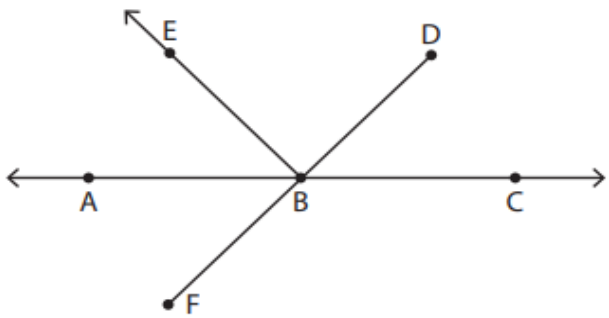
B) What will be the angle between the hands of the clock at 3 o'clock?

**Ans:** A) Correct labelling and drawing ……..(1m)




B) Angle between 2 consecutive numbers in a clock = 30° ……..(½ m)

At 3 o'clock angle between hands of the clock = 3 x 30° = 90° ……..(½ m)

| **Section C**: Long Answer Questions (Type – 1) of **3** marks each (Q.22 to Q.27) | |
|---|---|
| **22.** | Find the common factors of 24 and 28.<br>**Ans:** Factors of 24 = 1,2,3,4,6,8,12,24.....(1m)<br>Factors of 28 = 1,2,4,7,14,28.....(1m)<br>Common factors = 1, 2, 4.....(1m) |
| **23** | Suman has an amount of ₹ 25,000. He placed an order for 140 toy cars for his new shop. If the cost of each toy car is ₹75, how much money is left with Suman after the purchase?<br>**Ans:** Amount Suman had = ₹ 25,000 .....(½ m)<br>No. of toy cars = 140 .....(½ m)<br>Total cost of toy cars = 140 x 75 = 10500 .....(1m)<br>Amount left after purchase = 25000 – 10500 .....(½ m)<br>= ₹14,500..... (½ m) |
| **24.** | Arun purchased 63 cricket balls for ₹430 each and 63 footballs for ₹570 each. Find how much did he pay in all.<br>Ans: No. of cricket balls = 63<br>Cost of one cricket ball = ₹430 .....(1m)<br>No. of footballs = 63<br>Cost of one football = ₹570<br>Amount paid in all = 63 x 430 + 63 x 570 .....(½m)<br>= 63 x (430 + 570) .....(½m)<br>= 63 x 1000 = ₹63,000 .....(½+½) |
| **25.** | From the figure name the following:<br>1. A line<br>2. A ray<br>3. A line segment<br>**Ans:** 1. A line = $\overleftrightarrow{AC}$ ..... (1m)<br>  |

| | |
|---|---|
| | 2. A ray = $\overrightarrow{BA}$, $\overrightarrow{BC}$, $\overrightarrow{BE}$ (Any one) ……(1m)<br>3. A line segment = $\overline{FB}$, $\overline{BD}$, $\overline{FD}$, $\overline{BC}$, $\overline{AB}$, $\overline{BE}$, $\overline{AC}$ (Any one) ……(1m) |
| **26.** | The frequency table shows the favourite sports of children from a particular class in a school. Observe the table and answer the questions given below:<br>a) Which sport is liked by least number of children?<br>b) Name the sport liked by the greatest number of children.<br>c) How many children like hockey as their favourite sport?<br>**Ans:** a) Golf ……. (1m)<br>b) Football……. (1m)<br>c) 6……. (1m) |

| Sports | Tally Marks | Frequency |
|---|---|---|
| Athletics | \|\|\| | 3 |
| Football | 𝍸 \|\|\| | 8 |
| Golf | \|\| | 2 |
| Hockey | 𝍸 \| | 6 |
| Rugby | \|\|\|\| | 4 |

| | |
|---|---|
| **27.** | Check whether the given number is divisible by 11 or not (Show working)- **981307**<br>**Ans:** Sum of odd place digits = 7 + 3 + 8 = 18 ……(1m)<br>Sum of even place digits = 0 + 1 + 9 = 10……(1m)<br>Difference = 18 – 10 = 8, not divisible by 11……(½m)<br>∴981307 is not divisible by 11……(½m) |

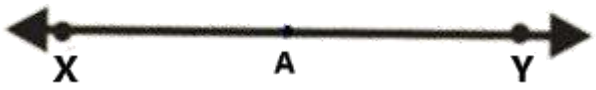
**Section D**: Long Answer Questions (Type – 2) (Q.28 to Q.33)

& Case study (Q.34 &35) of **4** marks each

| | |
|---|---|
| **28.** | Find by suitable rearrangement:<br>i) 8 × 689 × 125<br>ii) 713 + 248 + 187<br>Ans: i) 8 × 689 × 125 = (8 x 125) x 689 ……(1m)<br>= 1000 x 689 = 689000 ……(½m+½m)<br>ii)713 + 248 + 187 = (713 + 187) + 248 ……(1m)<br>= 900 + 248 = 1148 ……(½m+½m) |

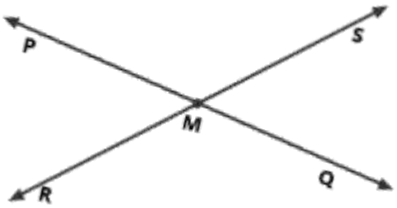
**29.** Draw a rough figure and write labels appropriately to illustrate each of the following:

a) Point A lies on $\overleftrightarrow{XY}$.
b) $\overleftrightarrow{PQ}$ and $\overleftrightarrow{RS}$ intersect at point M.



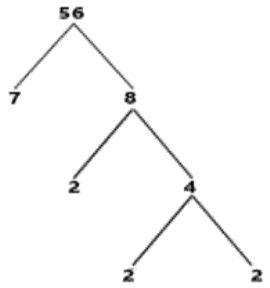

**Ans: a)** Line (1m) and Labelling (1m)

**b)** Line (1m) and Labelling (1m)




**30.** a) Find the prime factorization of 56 using **factor tree** method.

56 = 2 x 2 x 2 x 7 (1m)




.....(1m)

b) Find the prime factorization of 80 using **division** method. 80 = 2 x 2 x 2 x 2 x 5 …(1m)

| | |
|---|---|
| 2 | 80 |
| 2 | 40 |
| 2 | 20 |
| 2 | 10 |
| 5 | 5 |
| | 1 |

.....(1m)

**31.** Population of Agra and Aligarh districts in the year 2001 was 36,20,436 and 29,92,286 respectively.

a) What was the total population of the two districts in that year?
b) Which city is more populated? By how much:

Ans: a) Population of Agra = 36,20,436

Population of Aligarh = 29,92,286

The total population = 36,20,436 + 29,92,286 = 66,12,722 .....(1m)

b) Comparing 36,20,436 > 29,92,286.....(1m)

More populated city = Agra ..... (1m)

By how much = 36,20,436 - 29,92,286 = 6,28,150.....(1m)

**32.** The number of books sold by a bookseller in 5 days is given below. Prepare a pictograph using the key

▭ = 10 books for the following data.

| Days | No. of books |
|---|---|
| Monday | 60 |
| Tuesday | 50 |
| Wednesday | 30 |
| Thursday | 80 |
| Friday | 20 |

**Ans:**

| Days | No. of books ▭ = 10 books |
|---|---|
| Monday | ▭ ▭ ▭ ▭ ▭ ▭ |
| Tuesday | ▭ ▭ ▭ ▭ ▭ |
| Wednesday | ▭ ▭ ▭ |
| Thursday | ▭ ▭ ▭ ▭ ▭ ▭ ▭ |
| Friday | ▭ ▭ |

Table …….½m

½m each for each days and 1m for the complete pictograph.

**33.** Draw any circle with compasses and label the following parts:

(a) centre (b) a radius (c) a diameter (d) a sector

Ans: 1 mark each for each parts.

**34.** **Case Study-1**

The pictograph shows the marks obtained by 6 students in their exam out of 50 total marks.

| **Name of Student** | **Marks obtained** | **Key: ☆ = 5 marks** |
|---|---|---|
| Zara | ☆☆☆☆☆☆☆☆ | |
| Ali | ☆☆☆☆ | |
| Mary | ☆☆☆☆☆ | |
| Gabriel | ☆☆☆ | |
| Ahmed | ☆☆☆☆☆☆☆☆☆☆ | |
| Sophia | ☆☆☆☆☆☆☆ | |

Observe the pictograph and answer the following questions:

| | | |
|---|---|---|
| | a) Name the student who got 25 marks in the test. - Mary (1m)<br>b) How much marks Gabriel got? - 15 (1m)<br>c) Who got 50 out of 50 in the exam? - Ahmed (1m)<br>d) How much more marks did Sophia score than Ali? - 15 (1m) | |
| **35.** | **Case Study-2**<br><br>Tom and Sam are playing with Number Fluency Card Game. Both of them picked cards at random. Tom picks a card with number 40 on it. In Sam's card the number appeared is 32. Based on the numbers they started asking some questions.<br><br>i. Find the first three multiples of 40. = 40, 80, 120 ……**(1m)**<br>ii. Write the $6^{th}$ multiple of 32. = 192 **(1m)**<br>iii. Write the factors of 32.<br><br>Factors of 32 = 1,2,4,8,16,32 ……**(2m)** |  |

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