

About the Book

This book has been specially designed for students preparing for the Jawahar Navodaya Vidyalaya Class 6th Entrance Examination 2027. It is a complete syllabus-based study book that provides strong concept clarity, ample practice and exam-oriented preparation. Based on the latest JNVST syllabus, this 4 in 1 Book offers complete preparation at one place for better understanding and smart revision.

Key Features of the Book:

- This is a fully revised and enlarged edition prepared according to the latest JNVST syllabus, including the 11 April, 2026 and 13 December, 2025 solved papers.
- The book covers all three sections in a detailed and chapter-wise manner: Mental Ability Test, Arithmetic Test and Language Test.
- 1100+ Previous Year Questions (2009–2025) are included to help students understand the real exam pattern, question level and frequently asked topics.
- 1600+ Practice Questions are provided chapter-wise to strengthen concepts and improve speed and accuracy.
- The theory section is explained in simple and clear language so that students can easily understand every topic.
- The book focuses especially on important and frequently asked topics, ensuring smart and focused preparation.
- This 4 in 1 book is a balanced combination of Theory + PYQs + Practice Questions + Solved Papers helping students with effective revision and better time management.

With the help of this complete study book, students can strengthen weak areas, build confidence and move towards success in the Jawahar Navodaya Vidyalaya Entrance Examination.

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Jawahar Navodaya Vidyalaya
Class 6th Entrance Exam
Study Book

ISBN - 978-93-7516-185-1



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Jawahar Navodaya Vidyalaya Class 6th Entrance Exam Study Book

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AGRAWAL
EXAMCART

Conducted By Navodaya Vidyalaya Samiti

JAWAHAR NAVODAYA VIDYALAYA

(Class 6th)
Entrance Exam 2027

COMPLETE STUDY BOOK

Based on New NCERT textbooks
Arithmetic Test | Mental Ability Test | Language Test

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4 in 1 BOOK

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Arithmetic Test

Chapter No.	Chapter's Name (Complete Theory)	Total Questions	Page No.			
1.	Number and Numeric System	114	1-10			
	<ul style="list-style-type: none"> Complete Theory & Solved Examples Questions (Based on Different Topics) 					
	Topic No.			Name of Topic	Practice Questions	PYQs (2009-2025)
	1.			Mathematical Terminology	12	3
	2.			Digits of Numbers	11	13
	3.			Place Value and face Value	7	2
	4.			Comparison of Numbers	2	5
	5.			Classification of Numbers	18	8
	6.			Approximate Value of Numbers	3	5
	7.			Predecessor and Successor of a Numbers	3	1
8.	Divisibility Test of Numbers	16	5			
	Total	72	42			
2.	Four Fundamental Operations on Whole Number	74	11-16			
	<ul style="list-style-type: none"> Complete Theory & Solved Examples Questions (Based on Different Topics) 					
	Topic No.			Name of Topic	Practice Questions	PYQs (2009-2025)
	1.			Addition	18	7
	2.			Subtraction	12	5
	3.			Multiplication	12	6
4.	Division	10	4			
	Total	52	22			

Chapter No.	Chapter's Name (Complete Theory)	Total Questions	Page No.																
3.	Factors and Multiples Including their Properties <ul style="list-style-type: none"> Complete Theory & Solved Examples Questions (Based on Different Topics) <p>➤ Total Questions—25</p> <p>➤ PYQs (2009-2025)—14</p>	39	17-18																
4.	LCM & HCF <ul style="list-style-type: none"> Complete Theory & Solved Examples Questions (Based on Different Topics) <table border="1"> <thead> <tr> <th>Topic No.</th> <th>Name of Topic</th> <th>Practice Questions</th> <th>PYQs (2009-2025)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>L.C.M.</td> <td>10</td> <td>5</td> </tr> <tr> <td>2.</td> <td>H.C.F.</td> <td>7</td> <td>2</td> </tr> <tr> <td colspan="2" style="text-align: center;">Total</td> <td>17</td> <td>7</td> </tr> </tbody> </table>	Topic No.	Name of Topic	Practice Questions	PYQs (2009-2025)	1.	L.C.M.	10	5	2.	H.C.F.	7	2	Total		17	7	24	19-22
Topic No.	Name of Topic	Practice Questions	PYQs (2009-2025)																
1.	L.C.M.	10	5																
2.	H.C.F.	7	2																
Total		17	7																
5.	Decimal and Fundamental Operations on Them <ul style="list-style-type: none"> Complete Theory & Solved Examples Questions (Based on Different Topics) <p>➤ Total Questions—53</p> <p>➤ PYQs (2009-2025)—23</p>	76	23-26																
6.	Conversion of Fractions to Decimals and Vice-Versa <ul style="list-style-type: none"> Complete Theory & Solved Examples Questions (Based on Different Topics) <p>➤ Total Questions—54</p> <p>➤ PYQs (2009-2025)—16</p>	70	27-30																
7.	Fractional Numbers : Addition and Subtraction of Like Fractions and Multiplication <ul style="list-style-type: none"> Complete Theory & Solved Examples Questions (Based on Different Topics) <p>➤ Total Questions—83</p> <p>➤ PYQs (2009-2025)—18</p>	101	31-38																
8.	Simplification of Numerical Expressions <ul style="list-style-type: none"> Complete Theory & Solved Examples Questions (Based on Different Topics) <table border="1"> <thead> <tr> <th>Topic No.</th> <th>Name of Topic</th> <th>Practice Questions</th> <th>PYQs (2009-2025)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Simplification</td> <td>59</td> <td>17</td> </tr> <tr> <td>2.</td> <td>Approximation</td> <td>1</td> <td>2</td> </tr> <tr> <td colspan="2" style="text-align: center;">Total</td> <td>60</td> <td>19</td> </tr> </tbody> </table>	Topic No.	Name of Topic	Practice Questions	PYQs (2009-2025)	1.	Simplification	59	17	2.	Approximation	1	2	Total		60	19	79	39-43
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1.	Simplification	59	17																
2.	Approximation	1	2																
Total		60	19																

Chapter No.	Chapter's Name (Complete Theory)	Total Questions	Page No.			
9.	Measurement of Length, Mass, Capacity, Time, Money etc.	86	44-50			
	<ul style="list-style-type: none"> Complete Theory & Solved Examples Questions (Based on Different Topics) 					
	Topic No.			Name of Topic	Practice Questions	PYQs (2009-2025)
	1.			Measurement of Length	12	1
	2.			Measurement of Weight	11	4
	3.			Capacity	9	2
	4.			Measurement of Time	21	8
	5.			Temperature	5	1
	6.			Rupees	9	3
Total		67	19			
10.	Profit and Loss	64	51-54			
	<ul style="list-style-type: none"> Complete Theory & Solved Examples Questions (Based on Different Topics) <p>➤ Total Questions—40</p> <p>➤ PYQs (2009-2025)—24</p>					
11.	Types of Angle and Its Simple Application	72	55-62			
	<ul style="list-style-type: none"> Complete Theory & Solved Examples Questions (Based on Different Topics) 					
	Topic No.			Name of Topic	Practice Questions	PYQs (2009-2025)
	1.			Angles	32	6
	2.			Lines	32	2
Total		64	8			
12.	Perimeter and Area (Perimeter of Polygon, Area of Square, Rectangle and Triangle As a Part of Rectangle)	90	63-68			
	<ul style="list-style-type: none"> Complete Theory & Solved Examples Questions (Based on Different Topics) 					
	Topic No.			Name of Topic	Practice Questions	PYQs (2009-2025)
	1.			Square	17	4
	2.			Rectangle	27	14
	3.			Triangle	12	—
	4.			Problems Based on Area of Paths	10	5
	5.			Quadrilateral	1	—
Total		67	23			

Chapter No.	Chapter's Name (Complete Theory)	Total Questions	Page No.			
13.	Data Analysis Using Bar Diagram, Graph and Line Chart	33	69-75			
	<ul style="list-style-type: none"> ● Complete Theory & Solved Examples ● Questions (Based on Different Topics) 					
	Topic No.			Name of Topic	Practice Questions	PYQs (2009-2025)
	1.			Tabulation	6	—
	2.			Line Graph	3	—
	3.			Bar Graph	6	12
4.	Pictograph	—	6			
Total		15	18			

These chapters are not included in the syllabus of JNV class 6th but it is necessary for the children to read these chapters, hence these chapters have been included on the request of many teachers.

Chapter No.	Chapter's Name (Complete Theory)	Practice Questions	Page No.
1.	Percentage	105	1-5
2.	Distance, Time and Speed	74	6-10
3.	Pattern	22	11-12
Total Questions		201	

Mental Ability Test

Chapter No.	Chapter's Name (Complete Theory)	Practice Questions	PYQs (2009-2025)	Page No.
1.	Odd Man Out	36	75	1-8
2.	Figure Matching	33	74	9-24
3.	Pattern Completion	55	51	25-42
4.	Figure Series Completion	33	79	43-57
5.	Analogy	44	68	58-72
6.	Geometrical Figure Completion (Triangle, Square, Circle)	31	60	73-86
7.	Mirror Image	36	48	87-101
8.	Punched Hole Pattern Folding/Unfolding	58	48	102-116
9.	Space Visualization	45	49	117-130
10.	Embedded Figure	48	44	131-143
Total Questions		419	596	

Language Test

Chapter No.	Chapter's Name (Complete Theory)	Practice Questions	PYQs (2009-2025)	Page No.
1.	Comprehension (Unseen Passage)	175	250	1-28
2.	The Sentence	15	—	29-30
3.	Articles	11	3	31-32
4.	The Noun	10	—	33
5.	Pronoun	12	1	34-35
6.	Adjectives & Degrees of Comparison	13	2	36-38
7.	Verbs and Types	19	7	39-41
8.	Adverb	25	2	42-44
9.	Preposition	28	2	45-47
10.	Conjunction	25	1	48-49
11.	Tense Forms	12	8	50-53
12.	Antonyms	19	2	54-56
13.	Synonyms	18	2	57-59
14.	Idioms and Phrases	22	—	60-61
15.	One Word Substitution	20	—	62-63
Total Questions		424	280	

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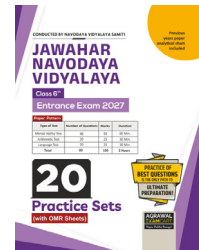
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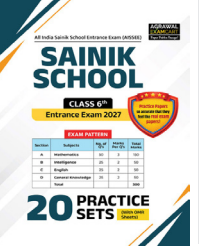
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Jawahar Navodaya Vidyalaya (Solved Papers)

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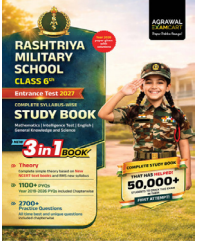

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Jawahar Navodaya Vidyalaya (Mock Papers)




Rashtriya Military School (Mock Papers)

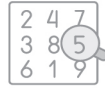



Rashtriya Military School (Guide book)




Sainik School (Guide book)





1 CHAPTER

Number and Numeric System

1. MATHEMATICAL TERMINOLOGY

- I. **Digits**—0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 are defined as digits in Mathematics. We can create many numbers by using these digits. For example: 10, 123, 456, 789, etc.
- II. **Number System**—There are mainly two types defined in the number systems These are—

(i) **Decimal Number System**—It contains 0 to 9 digits. That's why it is called *decimal number system*. In this system, the numbers is read and written in two ways—

● Indian Number System

In the Indian number system or Hindi-Arabic system, the numbers are read and written as per their place values. These numbers are read as per the following table.

Periods	Crores		Lakhs		Thousands		Ones	
Value	10,00,00,000 (Ten Crores)	1,00,00,000 (Crore)	10,00,000 (Ten Lakhs)	1,00,000 (Lakh)	10,000 (Ten Thousands)	1,000 (Thousand)	100 (Hundred)	10 (Ten)
	10^8	10^7	10^6	10^5	10^4	10^3	10^2	10^1
								1 (One)

Example : Number 51,45,42,786 can be read as Fifty-one Crores Forty-five Lakhs Forty-two Thousands Seven Hundred and Eighty-six. It is also called **number name**.

Unit Conversions :

- 1 tens = 10 units
- 1 Hundred = 10 tens = 100 units
- 1 Thousand = 10 Hundreds = 100 tens = 1000 units
- 1 Lakh = 10 Thousands = 100 Hundreds = 1000 tens
- 1 Crore = 10 Lakhs
= 100 Thousands
= 1000 Hundreds

● International Number System

In International number system, the numbers are read and written as per the following table.

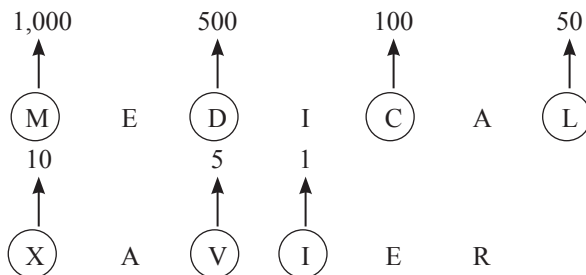
Periods	Millions			Thousands			Ones	
Value	100,000,000 (Hundred Millions)	10,000,000 (Ten Millions)	10,00,000 (Millions)	100,000 (Hundred Thousand)	10,000 (Ten Thousand)	1,000 (Thousand)	100 (Hundred)	10 (Ten)
	10^8	10^7	10^6	10^5	10^4	10^3	10^2	10^1
								1 (One)

Example : Number 14,542,786 can be read as Fourteen Million Five Hundred Forty-two Thousand Seven Hundred Eighty-six.

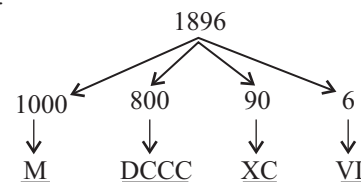
- (ii) **Roman Number System :** In this system, numbers are represented by Latin alphabets. The Roman numerals used in, are based on seven symbols or letters.

Roman System	I	V	X	L	C	D	M
Hindu Arabic System	1	5	10	50	100	500	1000

This is an easy way to remember the values of the seven Roman numeral letters :



Let us learn how to write numbers using these seven letters :



● Repetition of Letters (Addition Rule)

- ❖ A letter can be repeated a maximum of three times.
- ❖ V, L and D are never repeated.
- ❖ V and L are never used for subtraction.

Examples : 1,000 → M
800 → DCCC

● Smaller Value after a Larger Value

When a smaller value comes after a larger value, the values are added.

Example : 6 → VI (5 + 1)

● Smaller Value before a Large Value

When a smaller value comes before a larger value, the smaller value is subtracted.

Example : 90 → XC (100 - 10)

Then, the Roman notation of 1896 = MDCCXCVI

Example : 25 can be written as XXV and 101 as CI.

- **Integers** – Positive and negative counting numbers, with zero are called integers. Integers are denoted by capital letter **Z**.

$$Z = \{\dots - 3, -2, -1, 0, 1, 2, 3, \dots\}$$

- **Prime Numbers** – An integer with exactly two positive divisors: itself and 1, is called prime number. For example, 2, 3, 5, 7, 11, 13...etc., are the **prime numbers**. 2 is the smallest prime number.
- **Composite Numbers** – All those numbers greater than 1 that are not prime are called **composite numbers**. For example, 4, 6, 8, 9, 10, etc., are few composite numbers.
- **Rational Numbers** – Numbers that can be expressed as a ratio of an integer to a non-zero integer. Moreover any repeating or terminating decimal represents a **rational number**. Rational numbers are denoted by capital letter **Q**. All integers are rational, but the converse is not true.

$$Q = \left\{ \dots, \frac{2}{3}, -1, 0, \frac{1}{4}, \dots \right\}$$

- **Irrational Numbers** – All those real numbers that are not rational *i.e.*, those numbers that can not be written as a ratio as two integers are called irrational numbers. Moreover these numbers goes on forever without repeating. Irrational numbers are denoted by **I**.

$$I = \{\sqrt{2}, \sqrt{3}, \dots, \sqrt{7}\}$$

- **Real Numbers** – Positive, negative, zero and all types at decimal numbers are called real numbers. All rational numbers are real, but the converse is not true. These because they are not imaginary numbers.

6. APPROXIMATE VALUES OF NUMBERS

Place values are considered to be the base to find approximation values in numbers. Approximation value of few place values is determined by the following methods.

- **Approximate Value Nearest Tens Place** – If the number at units place is less than 5 then it is rounded of zero otherwise add 1 to the tens place and keeps unit place as zero.

Example : 73 can be rounded off to 70, 156 can be rounded off to 160 and 4265 can be rounded off to 4270.

- **Approximate Value Nearest Hundred Place** – If the number at tens place is less than 5 then it is rounded of zero otherwise add 1 to the hundred place and keeps tens place and unit place as zero.

Example : 510 can be rounded off to 500, 9573 can be rounded off to 9600 and 53650 can be rounded off to 53700.

- **Approximate Value Nearest Thousand Place** – If the number at hundred place is less than 5 then it is rounded of zero otherwise add 1 to the thousand place and keeps hundred place, tens place and unit place as zero.

Example : 6240 can be rounded off to 6000, 17573 can be rounded off to 18000 and 553650 can be rounded off to 554000.

7. PREDECESSOR AND SUCCESSOR OF A NUMBER

We start counting from the number 1. Hence 1 is the first natural number and the next natural number is 2 which is obtained by adding 1 to the first number. Hence, numbers are represented in two ways according to their orderliness :

- **Predecessor Number** – The natural number immediately preceding a natural number is its predecessor.

Example : Predecessor number of 65 = $65 - 1 = 64$

Predecessor number of 127 = $127 - 1 = 126$

- **Successor Number** – The natural number immediately next to any natural number is its successor.

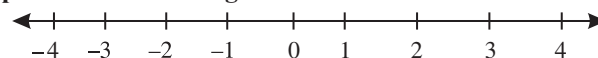
Example : Successor number of 785 = $785 + 1 = 786$

Successor number of 109 = $109 + 1 = 110$

8. INTEGERS

Integers are the collection of all positive and negative natural numbers including zero (0).

Representation of Integers On Number Line :



- Numbers 1, 2, 3, 4, are positive integers.
- Numbers -1, -2, -3, -4, are negative integers.
- Zero (0) is neither negative nor positive.
- All positive integers lie to the right side of zero (0) and all negative integers lie to the left of zero (0).

Predecessor and Successor Integers : The integer, immediately to the left of an integer on the number line, is called its predecessor and the integer, immediately to the right of an integer on the number line, is called its successor.

- For example :**
- The predecessor and successor of 2 are 1 and 3 respectively.
 - The predecessor and successor of -2 are -3 and -1 respectively.
 - The predecessor and successor of -1 are -2 and 0 respectively.

Additive Inverse – For any integers a ,

$$a + (-a) = 0$$

So, $-a$ is the additive inverse of an integer a .

The sum of an integer and its additive inverse is always 0.

For example, (i) additive inverse of 6 = -6

$$\therefore 6 + (-6) = 0$$

(ii) Additive inverse of -8 = 8

$$\therefore (-8) + 8 = 0$$

Note

- The additive inverse of a positive integer is a negative integer while the numerical value is the same.
- The additive inverse of a negative integer is a positive integer while the numerical value is the same.

9. FINDING THE LARGEST AND SMALLEST NUMBERS

We can form the largest and smallest number using any given digits.

To form the largest number, arrange the digits in the descending order.

For example, the largest 8-digit number formed using the digits 3, 5, 1, 9, 8, 0, 4 and 2 is 9, 85, 43, 210.

To form the smallest number, arrange the digits in the ascending order.

For example, the smallest 8-digit number formed using the digits 3, 5, 1, 9, 8, 0, 4 and 2 is 1, 02, 34, 589.

We cannot put 0 as the first digit to form the smallest 8-digit number.

Hence, the smallest 8-digit number formed using the given digit is 1,02,34,589.

Note

- To find the greatest number up to given digits, then write the digit '9' equal to the number of the digits.

Ex. : Greatest number of 3-digit = 999

Greatest number of 5-digit = 99999

- To find the smallest number up to given digits, write the first digit '1' and then write '0' equal to the remaining the number of digits.

Ex. : Smallest number of 4-digit = 1000

Smallest number of 6-digit = 100000

10. DIVISIBILITY TEST OF NUMBERS

● Divisibility by 2

If the unit digit of a number is any *i.e.*, 0, 2, 4, 6, 8, then the given number is divisible by 2.

Example : 84, 786, 282, 1008, 5000.....,etc., are divisible by 2.

● Divisibility by 3

A number is divisible by 3, if the sum of all digits of the number is divisible by 3.

Example : 786, here $7 + 8 + 6 = 21$ (completely divisible by 3)

So, the number 786 will be divisible by 3

● Divisibility by 4

A number is divisible by 4, if the last two-digit of the number is divisible by 4.

Example : 3464, here 64 is the last two-digit number which is divisible by 4.

So, the number 3464 will be divisible by 4.

● Divisibility by 5

A number is divisible by 5, if the unit digit of the number is either 0 or 5.

Example : 3125, 2010, 2015, 6580....., etc. are divisible by 5.

● Divisibility by 6

A number is divisible by 6, if the number is divisible by the numbers 2 and 3.

Example : Test whether number 8202 is divisible by 6.

(i) The unit digit of the number is 2 which is divisible by 2.

(ii) The sum of digits of the number = $8 + 2 + 0 + 2 = 12$ (divisible by 3)

Since, it is clear from (i) and (ii) that the number 8202 is divisible by both 2 and 3. So, the number will be divisible by 6.

● Divisibility by 7

Take the last digit of the given number and double it. Subtract this number from the rest of the digits in the original number. If this new number is either 0 or if it's a number that is divisible by 7, then the given number is also divisible by 7.

Example : Test whether number 2492 is divisible by 7.

Solution : Here, the unit digit of the number = 2

$249 - 2 \times 2 = 245$ (divisible by 7). So, the number will be divisible by 7.

● Divisibility by 8

A number is divisible by 8, if the last three-digit of the number is divisible by 8.

Example : Test whether number 6288 is divisible by 8.

Solution : Here, in the given number, 288 is the last three-digit number which is completely divisible by 8.

So, the number 6288 will be divisible by 8.

● Divisibility by 9

A number is divisible by 9, if the sum of its digits is divisible by 9.

Example : Test whether number 7074 is divisible by 9.

Sum of all digits of the number

$$= 7 + 0 + 7 + 4$$

$$= 18 \text{ (divisible by 9).}$$

So, the number 7074 will be divisible by 9.

● Divisibility by 11

A number is divisible by 11, if difference between the sum of digits at odd places and the sum of digits at even places, is divisible by 11.

Example : Test whether number 86460 is divisible by 11.

Sum of the all digits at even places in the number = $6 + 6 = 12$

Sum of the all digits at odd places in the number = $8 + 4 + 0 = 12$

Their difference = $12 - 12 = 0$. So, the number 6288 will be divisible by 11.

11. SOME IMPORTANT EXAMPLES

Example 1. : Find the value of : $\text{MXLII} + \text{CXCIV} - \text{LXIII}$

Solution : $\text{MXLII} = 1042$

$\text{CXCIV} = 194$

$\text{LXIII} = 63$

$$\begin{aligned} \text{Now, } & \text{MXLII} + \text{CXCIV} - \text{LXIII} \\ & = 1042 + 194 - 63 = 1173 \end{aligned}$$

Roman number of 1173 is MCLXXIII.

Example 2. : Which of the following are four consecutive composite numbers ?

- (i) 22, 23, 24, 25 (ii) 60, 61, 62, 65
(ii) 56, 57, 58, 59 (iv) 90, 91, 92, 93

Solution : We know that composite numbers are those numbers which have more than two factors.

In option (i), the number 23 is a prime number *i.e.* not a composite number.

In option (ii), the number 61 is a prime number.

In option (iii), the number 59 is a prime number.

In option (iv), all the numbers 90, 91, 92, 93 are composite numbers, because the factors of these numbers are more than two.

Factors of 90 = 1, 2, 3, 5, 6, 9, 10, 15, 18, 30, 45, 90

Factors of 91 = 1, 7, 13, 91

Factors of 92 = 1, 2, 4, 23, 46, 92

Factors of 93 = 1, 3, 31, 93, hence option (iv) is correct.

Example 3. : The product of Place-value and Face value of digit 6 in the number 7860443 is

Solution : Place value of 6 in 7860443 is 60000.

Face value of 6 in 7860443 is 6.

$$\begin{aligned} \text{Required product} &= 60000 \times 6 \\ &= 360000 \end{aligned}$$

Example 4. : Find the smallest five digit number using three different digits.

Solution : Smallest five digit number using three different digits is 10002.

Example 5. : On dividing 2272 as well as 875 by a 3-digit number N, we get the same remainder. The sum of the digit of N is :

Solution : On dividing the numbers 2272 and 875 by N, the remainder is the same.

So. Here,

$$2272 - 875 = 1397 \text{ will be divisible by } N$$

$$1397 = 11 \times 127$$

That is, 1397 is divisible only by 11 and 127.

But N is a three digit number.

$$\therefore N = 127$$

Hence, sum of digits of

$$N = 1 + 2 + 7 = 10$$

Example 6. : There are 17 rooms in a school, every room has two fans and four LED bulbs. How many switches are required for the school if every fan requires a switch and one switch is required for every two bulbs ?

Solution : \therefore No. of fans and LED bulbs in 1 room 2 and 4 respectively

$$\text{Hence, required switches in one room} = 2 + 2 = 4$$

$$\therefore \text{Required switches in such 17 rooms} = 17 \times 4 = 68$$

Example 7. : Find the nearest value to ten thousands of 56789 and 98765:

Solution : To find the value of a number to the nearest ten thousand, the thousandth digit is calculated. If the thousandth digit is 5 or more than 5, then the ten thousandth digit of the number is increased by 1 and the thousands, hundreds, tens and units places of the number become zero. If the thousandth digit is less than 5, then the ten thousandth digit of the number remains the same and the thousands, hundreds, tens and ones digits become zero.

Hence, in the number 56789, the thousandth digit is 6 *i.e.* more than 5, then the nearest value of 56789 in ten thousand will be 60000.

In the number 98765, the thousandth digit is more than 8 *i.e.* 5, then the nearest value of 98765 in ten thousand will be 100000.

Example 8. : Which of the following number is completely divisible by 18 ?

Solution : Any number is divisible by both 2 & 9. Then it will also be divisible by 18.

(i) **Divisibility by 2**—If in unit there is 0, 2, 4, 6, 8 then that number will be divisible by 2.

(ii) **Divisibility by 9**—If the total of digits of the numbers will be multiple of 9 then it will be divisible by 9. Like $783 = 7 + 8 + 3 = 18$, which is multiple of 9.

$$\therefore 783 \text{ is divisible by } 9.$$

by options examining

$$\therefore 666666 \text{ is completely divisible by } 18.$$

Important Questions

1. Mathematical Terminology

1. Which of the following is the correct representation for number 99 ?

- (A) IC (B) XCVIII
(C) XCIX (D) L + XXXIX

2. Fill in the blank with the correct option.

$$\text{CCCXC} + \text{LIX} = \dots\dots\dots$$

- (A) CCCCXLIX (B) CDXLIX
(C) CDCXLIX (D) CDXXXXIX

3. Seventy six lakh four thousand eighty three is written as in the international number system.
(A) 7,640,083 (B) 76,483
(C) 7,60,483 (D) 76,04,083
4. Which of the following numbers in Roman Numerals is incorrect ?
(A) LXII (B) XCI (C) LC (D) XLIV
5. In Roman numeration, if a symbol is repeated, its value is not multiplied as many times as it occurs.
(A) True (B) False
(C) Cannot say (D) Both are equal
6. Write Roman numeral CDXXXIX in Arabic numeral.
(A) 439 (B) 449
(C) 529 (D) 539
7. Write Roman numerals CDXLIX in Arabic numerals :
(A) 569 (B) 449 (C) 549 (D) 469
8. Find the largest in the following.
(A) XLIII + XLIV (B) LXXIX – XXXIX
(C) XCIX – LXVIII (D) LVII + XL
9. One crore ten thousands six hundred eleven is written as :
(A) 10,10,611 (B) 10,10,10,611
(C) 10,00,10,611 (D) 100,00,10,611
10. The roman numeral of 67 is :
(A) XLVII (B) LXVII (C) XXVII (D) DXVII
11. There are XC students in Class 8th. XL students are absent today. How many students are present (in roman numeral)?
(A) L (B) XL (C) LX (D) X
12. Which of the following is the correct representation, using Roman Numerals of the number 199?
(A) ICC (B) CLXXXIX
(C) CXCIX (D) ICCCD

2. Digits of Numbers

13. Find the sum of 4-digit greatest number and 6-digit smallest number, each having 3 different digits.
(A) 109999 (B) 109989 (C) 110020 (D) 1000989
14. Subtract 28,576 from the sum of the least and the greatest 5-digit number formed using the digits 3, 0, 5, 8 and 1.
(A) 67,092 (B) 84,563 (C) 68,932 (D) 73,695
15. Choose the smallest possible 7-digit number that you can form using each of the following digits 5, 1, 8, 0, 3 :
(A) 1310058 (B) 1001358
(C) 1130058 (D) 1000358
16. Find the difference between the greatest and the least number that can be written using the digits 6, 2, 7, 4, 3 each only once.
(A) 52965 (B) 53965 (C) 52956 (D) 52659
17. The greatest 8-digit number using the digits 5, 8, 7, 5, 2, 0, 6 and 1 is :

- (A) 88765210 (B) 87765210
(C) 88765521 (D) 87655210

18. The smallest odd number formed by using the digits 1, 2, 3, 4 and 5 is :
(A) 12345 (B) 12435 (C) 12453 (D) 12534
19. The smallest number of 5 digit formed with the digits 3, 0, 8, 4 and 1.
(A) 10843 (B) 10834 (C) 10348 (D) 18034
20. Find the largest number which can be formed by 3, 8, 7, 9 ?
(A) 8973 (B) 9873 (C) 9783 (D) 3789
21. Write the smallest 3-digit number which will not change on reversing the digits
(A) 100 (B) 888 (C) 999 (D) 101
22. The greatest 5-digit number is :
(A) 99999 (B) 100000
(C) 98765 (D) 56789
23. I am a five-digit even number. I have 9 at my tens place. The digit at the ten thousands place is three less than the digit at the tens place. The digit at the hundreds place is half the value of the digit at the ten thousand place. The digit at the thousand place is double the digit at the ones place. Who am I ?
(A) 68494 (B) 61392 (C) 64391 (D) 68394

3. Place Value and Face Value

24. In 563672, the place value of 6 at the ten thousands place is times the place value of 6 at the hundreds place.
(A) 1000 (B) 100 (C) 10 (D) 10000
25. Sum of place values of the underlined digits in the given number is
695281 5348573
(A) 305071 (B) 300551 (C) 305017 (D) 3005071
26. Place value of 7 in the number 9374293 is :
(A) 700 (B) 7000 (C) 70000 (D) 700000
27. What is the difference between the place value and face value of 7 in 329075?
(A) 63 (B) 36 (C) 49 (D) 490
28. Find the place value of 7 in 874213 :
(A) 1000 (B) 7 (C) 74213 (D) 70000
29. The face value of 6 in 16008 is :
(A) 6000 (B) 6 (C) 60 (D) 600
30. What is the difference of the place values of two 7s in the number 276875 ?
(A) 69993 (B) 699730 (C) 699970 (D) 69930

4. Comparison of Numbers

31. Which of the following numerals are arranged in ascending order ?
(A) 6821, 6862, 6261, 2861
(B) 9075, 7905, 9701, 5907
(C) 10529, 12049, 12509, 15249
(D) 23124, 23213, 21467, 2764

32. Choose the correct option if number 52806, 52086, 52860, 52800 and 58260 are arranged in ascending order.
 (A) 52086<52806<52860<52800<58260
 (B) 52800<52860<52086<58260<52806
 (C) 52086<52800<52806<52860<58260
 (D) 52800<52806<52860<52086<58260

5. Classification of Numbers

33. A pair of twin prime number between 70 and 100 is
 (A) 71, 73 (B) 79, 83 (C) 97, 99 (D) 87, 89
34. All natural numbers and 0 are called as Numbers.
 (A) Rational (B) Integers (C) Whole (D) Prime
35. The sum of the smallest even and smallest odd prime number is :
 (A) A composite number (B) An even number
 (C) A prime number (D) None of these
36. -5 is a
 (A) Integer (B) Prime number
 (C) Composite number (D) None of the above
37. Which of the numbers are twin prime?
 (A) (5, 7) (B) (18, 25) (C) (11, 17) (D) (23, 62)
38. The smallest natural number is :
 (A) 0 (B) -1 (C) 2 (D) 1
39. Sum of all the prime numbers between 10 and 25 is :
 (A) 72 (B) 83 (C) 66 (D) 70
40. Which of the following numbers are co-prime ?
 (A) (14, 35) (B) (18, 25) (C) (31, 93) (D) (23, 69)
41. The even prime number is :
 (A) 2 (B) 6 (C) 4 (D) 8
42. The sum of first eight prime numbers is?
 (A) 76 (B) 78 (C) 77 (D) 79
43. I am a prime number. If you subtract 1 from me, I will become divisible by 9. Who am I ?
 (A) 29 (B) 19 (C) 17 (D) 11
44. The smallest composite number is :
 (A) 4 (B) 1 (C) 9 (D) 6
45. The sum of all prime numbers between 58 and 68 is :
 (A) 179 (B) 178 (C) 187 (D) 183
46. How many three-digit numbers are there in all ?
 (A) 900 (B) 999 (C) 499 (D) 566
47. The sum of all prime number, less than 21, is :
 (A) 77 (B) 67 (C) 41 (D) 48
48. Which of the following statements are NOT correct?
 (1) Composite numbers are always even
 (2) Prime numbers are always odd.
 (3) Sum of two prime numbers is always prime.
 (4) Product of two composite numbers is always composite.
 (A) 1 and 4 only (B) 2 and 3 only
 (C) 1, 2 and 3 only (D) 1, 2, 3 and 4

49. There are 17 rooms in a school, every room has two fans and four LED bulbs. How many switches are required for the school if every fan requires a switch and one switch is required for every two bulbs ?
 (A) 34 (B) 68 (C) 102 (D) 17
50. A tall office building has 85 floors. Each floor has 48 windows. Each window is to be decorated with 64 tiny bulbs. How many bulbs would be needed to decorate all the windows ?
 (A) 261120 (B) 273920 (C) 456960 (D) 209920

6. Approximate Value of Numbers

51. Rounding off 7348561 to the nearest hundred is
 (A) 7348000 (B) 7348600
 (C) 7348560 (D) 7348500
52. Estimate the product 5980×428 by rounding off each number to the nearest hundreds.
 (A) 236000 (B) 240000
 (C) 2400000 (D) 3000000
53. Round off 37507 to the nearest hundreds is :
 (A) 37500 (B) 37000 (C) 38000 (D) 30000

7. Predecessor and Successor of a Numbers

54. The successor of 1 million is :
 (A) 2 millions (B) 1000001
 (C) 100001 (D) 10001
55. The product of a non-zero whole number and its successor is always :
 (A) Divisible by 3 (B) An odd number
 (C) A prime number (D) An even number
56. The difference between the predecessor and the successor of one million is _____.
 (A) 1 (B) 2
 (C) 1,000,000 (D) 1000001

8. Divisibility Test of Numbers

57. The smallest 5-digits number that is divisible by 19 is :
 (A) 10019 (B) 10013 (C) 10032 (D) 10000
58. 297144 is divisible by :
 (A) 3 (B) 6 (C) 9 (D) 3, 6 and 9
59. The largest 4-digit number divisible by 459 is :
 (A) 9639 (B) 9999 (C) 9759 (D) 9649
60. The largest 3-digit number divisible by 29 is :
 (A) 999 (B) 957 (C) 968 (D) 986
61. The largest 3-digit number divisible by 19 is :
 (A) 969 (B) 998 (C) 988 (D) 999
62. Find the smallest 3 digit number which is completely divisible by 15?
 (A) 999 (B) 101 (C) 105 (D) 909

63. Which of the following option is correct?
 (i) If the number is divisible by 3, it must be divisible by 9.
 (ii) If the number is divisible by 8, it must be divisible by 4.
 (A) (i) True and (ii) True (B) (i) True and (ii) False
 (C) (i) False and (ii) True (D) (i) False and (ii) False
64. Find the sum of all numbers less than 27 which are divisible by 9 :
 (A) 18 (B) 54 (C) 27 (D) 36
65. What least value must be given to *so that the number 3*63504 is divisible by 11?
 (A) 0 (B) 2 (C) 3 (D) 4
66. Which one of the following number is divisible by 3?
 (A) 8003 (B) 6896 (C) 4878 (D) 2690
67. The number of two digit natural numbers is :
 (A) 69 (B) 90 (C) 91 (D) 99
68. The sum of three consecutive odd numbers is always divisible by :
 (A) 3 (B) 9 (C) 15 (D) 21
69. The smallest 5-digit number that is divisible by 19 is :
 (A) 10019 (B) 10013
 (C) 10032 (D) 10000
70. The least number of 4 digits exactly divisible by 7 is
 (A) 1007 (B) 1001
 (C) 1,006 (D) 1009
71. To complete the division, choose two numbers from the given box.

$$\boxed{4, 5, 9, 31, 38, 44, 48, 132}$$

$$\square \div \square = 11$$

 (A) 132, 12 (B) 99, 9
 (C) 44, 4 (D) 38, 5
72. X is a two-digit number, Y is the number obtained on reversing the digits of X. Which of the following is true ?
 (A) X + Y is divisible by 10.
 (B) X – Y is divisible by 6.
 (C) X – Y is divisible by 9.
 (D) X + Y is divisible by 8.

All Chapterwise Questions (PYQs) from Previous Year 2009 to 2025

1. Mathematical Terminology

1. 30009 is same as :
 (A) 30 ten thousands and 9 tens
 (B) 30 thousands and 9 hundreds
 (C) 3 ten thousands and 9 ones
 (D) 3 ten thousands and 9 tens
(JNV 2024)
2. Two lakh two thousand, in digits, is written as :
 (A) 20200 (B) 200200 (C) 202000 (D) 22000
(JNV 2021)
3. 16 lakhs, eight hundred thirteen is written as :
 (A) 16813 (B) 160830 (C) 1600813 (D) 160713
(JNV 2010)

2. Digits of Numbers

4. The difference between the greatest and smallest 5-digit numbers formed using 2, 1, 9, 0 and 4 is :
 (A) 92961 (B) 81720 (C) 83961 (D) 89000
(JNV 2025)
5. Find the difference between the greatest and the smallest 4-digit numbers formed using all the digits 4, 2, 0 and 7.
 (A) 5000 (B) 5300 (C) 5373 (D) 5720
(JNV 2025)
6. The difference between the greatest and the smallest 5-digit numbers, formed by the digits 0, 3, 6, 7 and 9 without repetition, is :
 (A) 93951 (B) 67061 (C) 66951 (D) 60840
(JNV 2019)
7. Find a 4 digit number, formed by different digits, in which 9 is at the place of tens ?
 (A) 1092 (B) 1290 (C) 2091 (D) 2190
(JNV 2017)
8. The smallest even number formed by using the digits 9, 5, 0, 2, 4 is
 (A) 20594 (B) 20459 (C) 02594 (D) 02459
(JNV 2017)
9. What is that smallest number made up of by using the digits 4, 5, 0 and 3 (The repetition of digits is possible) ?
 (A) 30450 (B) 30045 (C) 34500 (D) 30540
(JNV 2014)
10. The difference of largest and smallest number of 5 digits which is made up of 0, 3, 6, 8 and 9 digits. (each digit can be used once only) ?
 (A) 94941 (B) 61821 (C) 61740 (D) 67941
(JNV 2013)
11. The largest even number of 5 digits, which is made up of 3, 0, 5, 7 and 8 is :
 (A) 83570 (B) 85703 (C) 87530 (D) 87350
(JNV 2013)
12. The addition of two numbers is 234560. If one number is Ten thousand ten more than another number, then what will be the larger number ?
 (A) 112275 (B) 122285 (C) 132285 (D) 117280
(JNV 2013)
13. The largest number of 5 digits which is made by 9, 6, 3 and 0 (any digit can be used twice) is :
 (A) 96630 (B) 96300 (C) 99630 (D) 90963
(JNV 2013)

14. The difference in the largest odd number and smallest odd number of 5 digits which is formed by 0, 3, 6, 7 and 9 (repetition of digits is not allowed) ?

(A) 66951 (B) 66924 (C) 20700 (D) 19564

(JNV 2012)

15. What is the largest even number of 5 digits formed by digits 4, 0, 6, 7, 3 & 8 ?

(A) 70648 (B) 87643
(C) 87634 (D) 87640

(JNV 2011)

16. Find the smallest number of four digits whose each every digit is different ?

(A) 1000 (B) 1023 (C) 1032 (D) 1230

(JNV 2009)

3. Place Value and Face Value

17. What is the sum of the place value of 5 in the number 584356 ?

(A) 10 (B) 50050 (C) 5050 (D) 500050

(JNV 2019)

18. Which digit has the maximum place value in the number 59368 ?

(A) 9 (B) 8 (C) 5 (D) 6

(JNV 2016)

4. Comparison of Numbers

19. Which is largest number of the following four numbers ? 8080, 8800, 8008, 8880

(A) 8080 (B) 8008
(C) 8880 (D) 8800

(JNV 2015)

20. Write the following in ascending order : 11023, 11032, 12031, 12013

(A) 11023, 12031, 12013, 11032
(B) 11032, 12013, 11023, 12031
(C) 11023, 11032, 12013, 12031
(D) 11032, 11023, 12013, 12031

(JNV 2015)

21. Arrange the following numbers in ascending order : 98230, 98023, 89320, 98032

(A) 98230, 98023, 89320, 98032
(B) 89320, 98230, 98032, 98023
(C) 89320, 98032, 98023, 98230
(D) 89320, 98023, 98032, 98230

(JNV 2014)

22. The descending order of the numbers 45405, 45450, 45504, 45449 is :

(A) 45504, 45450, 45449, 45405
(B) 45405, 45449, 45450, 45504
(C) 45450, 45504, 45405, 45449
(D) 45504, 45405, 45449, 45450

(JNV 2012)

23. Which of the following number is the largest ?

45600, 45606, 46506, 40566

(A) 45600 (B) 45606 (C) 46506 (D) 10566

(JNV 2009)

5. Classification of Numbers

24. Which of the following is always a factor of every prime number?

(A) 1 (B) 2 (C) 4 (D) 7

(JNV 2025)

25. What is the sum of the first four prime numbers ?

(A) 10 (B) 11 (C) 26 (D) 17

(JNV 2021)

26. Which of the following statement is correct ?

(A) Zero is an odd number
(B) Zero is an even number
(C) Zero is a prime number
(D) Zero is neither odd nor even number

(JNV 2019)

27. By using the digit 9, 8 and 0 (When every digit can be used only once) how many natural numbers can be made ?

(A) 4 (B) 7 (C) 8 (D) 10

(JNV 2014)

28. If the sum of numbers of each row, each column and each diagonal is same, then write the values of a , b and c respectively.

8 1 a
3 b c
4 9 2

(A) 6, 5, 7 (B) 5, 6, 7 (C) 7, 6, 5 (D) 6, 7, 5

(JNV 2014)

29. The largest prime number of 2 digits is :

(A) 93 (B) 97 (C) 91 (D) 99

(JNV 2013)

30. How many prime numbers of 2 digits will be there whose each digit is also a prime number ?

(A) 3 (B) 4 (C) 6 (D) 9

(JNV 2012)

31. If product of three numbers is 6720, out of these product of two numbers is 240, then the third number is :

(A) 28 (B) 24 (C) 16 (D) 15

(JNV 2009)

6. Approximate Value of Numbers

32. Sumit weighs 107 kg and Sanjay weighs 82 kg. The difference of their weight if the weight of each is rounded off to the nearest tens is :

(A) 30 kg (B) 100 kg (C) 40 kg (D) 20 kg

(JNV 2024)

33. The expenditure of a family per month is as follows :

Kitchen = ₹ 9,378

Education = ₹ 3,780

Conveyance = ₹ 2,817

Sundry Expenses = ₹ 4,388.

Rounded off total monthly expenditure of the family to the nearest thousand is :

- (A) ₹ 21,000 (B) ₹ 24,000
(C) ₹ 20,000 (D) ₹ 23,000

(JNV 2023)

34. Find the nearest value to ten thousands of 56789 and 98765:

- (A) 59000, 10009 (B) 60000, 100000
(C) 59900, 10080 (D) 62000, 10675

(JNV 2016)

35. The difference between the nearest thousands value of 14510 and the nearest Hundreds value of 8849 is :

- (A) 5200 (B) 5700 (C) 6200 (D) 6150

(JNV 2012)

36. What is nearest value to tens place of number 12056 ?

- (A) 12000 (B) 12060 (C) 12100 (D) 12150

(JNV 2009)

7. Predecessor and Successor of a Numbers

37. If a is predecessor of b , then find the value of $(a - b)$ and $(b - a)$:

- (A) -1 and 1 (B) 1 and -1
(C) 0 and -1 (D) 1 and 0 (JNV 2018)

8. Divisibility Test of Numbers

38. In a question of division, if divisor is 51, quotient is 16 and remainder is 27, then the dividend is :

- (A) 843 (B) 483
(C) 9 (D) 1393

(JNV 2025)

39. Which of the following numbers is divisible by 3 ?

- (A) 518932 (B) 117342
(C) 213454 (D) 337625

(JNV 2024)

40. The sum of the digits of a number is subtracted from the number. The resulting number is always divisible by :

- (A) 2 (B) 7 (C) 5 (D) 9

(JNV 2022, 2018)

41. Which of the following number is completely divisible by 18 ?

- (A) 444444 (B) 555555
(C) 666660 (D) 666666 (JNV 2018)

42. How many numbers are there between 1 and 100 which are completely divisible by 6 ?

- (A) 15 (B) 17
(C) 16 (D) 19

(JNV 2016)

□□