

## Reasoning

N	lum	ber	Base	ed A	<u>nal</u>	<u>ogv</u>	

S.No.	Pattern Type	Explanation / Logic	Example	
1	Addition Series	Same number is added to get second number.	5 : 8 :: 10 : 13 (Add 3)	
2	Subtraction Series	Fixed number is subtracted to reach second number.	12 : 7 :: 10 : 5 (Subtract 5)	
3	Multiplication	Second number is a multiple of the first.	4 : 12 :: 5 : 15 (×3)	
4	Division	Second number is obtained by dividing the first.	16:4::20:5(÷4)	
5	Square/Cube Relationship	Second number is square or cube of the first (or vice5 : 25 :: 6 : 36 (Square)versa).		
6	Square Root / Cube Root	Reverse of above: second is root of the first.	49:7::64:8	
7	Sum of Digits	Sum of digits of the first = second (or some123:6::234:9manipulation).		
8	Difference of Numbers	Difference follows a pattern.	11:7::9:5 (Both -4)	
9	Prime Numbers	First or second is a prime; check prime progression.	5:11:7:13	
10	Even-Odd Relationship	Both numbers have even/odd relation.	2:4::3:6	
11	Reverse Digits	Digits are reversed in the second number.	13:31::14:41	
12	Digit Square Sum	Square digits and add.	$12: 1^2 + 2^2 = 5:: 23: 2^2 + 3^2 = 13$	
13	Sum × Multiplier	Sum of digits × constant = second number.	23 : (2+3)×2 = 10 :: 41 : (4+1)×2 = 10	
14	Geometric Series	Terms form geometric progression (multiply/divide by ratio).	2:4::8:16	
15	Increasing Square Pattern	Use squares in increasing order.	1:4::9:16	
16	Factorial Based	Involve factorial of digits.	3 : 6 (3! = 6) :: 4 : 24 (4!)	
17	Multiple Operations	Apply +, –, × or ÷ together or in sequence.	5 : (5×2)+1 = 11 :: 6 : (6×2)+1 = 13	
18	<b>Combination of Positions</b>	Use position in number line or place value logic.	1 : A :: 26 : Z (Alphabet–Number)	

## Word Based Analogy

S.No.	Analogy Pattern Type	Explanation / Logic	Example		
1	Synonym Relationship	First and second words are synonyms;	Joy : Happiness :: Anger : Rage		
		find a similar pair.			
2	Antonym Relationship	Words are opposites; second pair must	Generous : Stingy :: Kind : Cruel		
		also be opposites.			
3	3 Cause & Effect First causes the second; a		Fire : Burn :: Ice : Freeze		
		to second pair.			
4	<b>Tool and Profession</b>	Tool used by a professional; match	Scalpel : Surgeon :: Brush : Painter		
		second pair similarly.			
5	Worker and Product	A worker makes or produces the item.	Author : Book :: Poet : Poem		
6	Function or Purpose	First is used for second's purpose.	Knife : Cut :: Pen : Write		
7	Part and Whole	First is part of the second; maintain same	Wheel : Car :: Page : Book		
		relation.			
8	Object and Action	Action performed by or on the object.	Axe : Chop :: Gun : Shoot		
9	Quantity/Measurement	One unit used to measure another.	Liter : Liquid :: Kilogram : Mass		
10	Degree/Intensity	Second is a higher or lower degree of	Warm : Hot :: Cold : Freezing		
		first.			
11	Animal and Sound	Sound made by the animal.	Dog : Bark :: Cat : Meow		
12	Animal and Habitat	Natural home or habitat of the animal.	Fish : Water :: Lion : Forest		
13	Tool and Object Used On	Tool is used on the second object.	Hammer : Nail :: Comb : Hair		
14 Class and Member First is a category, second is a		First is a category, second is a specific	Flower : Rose :: Tree : Oak		
		member.			
15	Male-Female / Gender	Gender counterparts of living beings.	King : Queen :: Bull : Cow		
	Relation				





16	Young One / Offspring	Adult and baby relationship.	Dog : Puppy :: Cat : Kitten	
	Relation			
17	<b>Profession and Place of Work</b>	The place associated with a profession.	Teacher : School :: Doctor : Hospital	
18	Tool and Its Output	What a tool or device produces.	Oven : Bread :: Camera : Photograph	
19	Instrument and Measurement	Scientific instruments and what they	Thermometer : Temperature :: Barometer	
		measure.	Pressure	
20	Capital and Country	Capital cities and their countries.	Tokyo : Japan :: Paris : France	
21	<b>Currency and Country</b>	Currency associated with countries.	Yen : Japan :: Rupee : India	
22	Worker and Raw Material	Person and material they work with.	Carpenter : Wood :: Blacksmith : Iron	
23	Word-Meaning / Definition	Second word is a definition of the first.	Honest : Truthful :: Brave : Courageous	
24	<b>Object and Material Made Of</b>	Material from which something is made.	Bottle : Glass :: Shirt : Cotton	
25	Vehicle and Path/Medium	Medium of movement for a vehicle.	Ship : Water :: Airplane : Air	

## **GK Based Analogy**

Pattern Type	Description	Example	Explanation
Country : Capital	Match a country with its capital city.	India : New Delhi :: Japan : ?	Japan : Tokyo
<b>Country : Currency</b>	Pair a country with its official currency.	USA : Dollar :: UK : ?	UK : Pound Sterling
State : Capital	Indian states and their capitals.	Maharashtra : Mumbai :: Tamil	Tamil Nadu : Chennai
		Nadu:?	
Leader : Country	Famous leaders and their nations.	Mahatma Gandhi : India :: Nelson	Nelson Mandela : South
		Mandela : ?	Africa
<b>Invention : Inventor</b>	Match inventions with their inventors.	Telephone : Graham Bell :: Radio :	Radio : Marconi
		?	
<b>Organization :</b> Global organizations and their HQs.		WHO : Geneva :: UNO : ?	UNO : New York
Headquarters			
Book : Author	Famous books and their authors.	'Gitanjali' : Tagore :: 'Discovery of	Nehru
		India' : ?	
War : Year	Match historical events with the year	First World War : 1914 :: Second	1939
	they happened.	World War : ?	
Monument : Place	Famous monuments and their locations.	Taj Mahal : Agra :: Charminar : ?	Hyderabad
Festival : State	Match a festival with its major state.	Bihu : Assam :: Pongal : ?	Tamil Nadu
Day : Date	Match special days with their observed	Independence Day : 15 Aug ::	26 Jan
	dates.	Republic Day : ?	
River : Origin	Match rivers with their origins.	Ganga : Gangotri :: Yamuna : ?	Yamunotri
<b>Sports : Trophy</b> Match sports with their related trophies.		Cricket : Ashes :: Hockey : ?	Sultan Azlan Shah
Award : Field	National/international awards and their	Bharat Ratna : Civilian :: Arjuna	Sports
fields.		Award : ?	
City : Nickname	Cities with their popular nicknames.	Kolkata : City of Joy :: Jaipur : ?	Pink City







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