

# NUMBER & LETTER SERIES

## QUESTIONS & ANSWERS FOR GOVERNMENT EXAMS

EXACTLY 100 Questions | 10 Types Covered | PYQs + Expected | By Poly Notes Hub

SSC CGL | SSC CHSL | SSC GD | UPSC CSAT | RRB NTPC | IBPS PO | SBI PO | RRB Group D | RBI Grade B | LIC AAO

2024-2026 Edition | Every Question Has Answer + Complete Pattern Logic

### About This Document

This document contains exactly 100 Number & Letter Series questions compiled from previous year government exam papers and high-probability expected patterns for 2025-2026. All 10 major types are covered: Arithmetic Difference, Geometric/Multiplication, Squares & Cubes, Mixed Operations, Wrong Term, Simple Letter, Letter-Group, Mixed Letter-Number, Missing Letter, and Expected Questions. Every question includes a complete pattern explanation so you understand the rule — not just the answer. Exams covered: SSC CGL, SSC CHSL, SSC GD, SSC MTS, UPSC CSAT, RRB NTPC, RRB ALP, RRB Group D, IBPS PO, IBPS Clerk, SBI PO, SBI Clerk, RBI Grade B, LIC AAO, NABARD, Delhi Police, and State PSC.

### QUICK REFERENCE: SQUARES, CUBES & PRIMES

#### Perfect Squares ( $n^2$ ) — 1 to 30

n	1	2	3	4	5	6	7	8	9	10
$n^2$	1	4	9	16	25	36	49	64	81	100
n	11	12	13	14	15	16	17	18	19	20
$n^2$	121	144	169	196	225	256	289	324	361	400

#### Perfect Cubes ( $n^3$ ) — 1 to 15

n	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
$n^3$	1	8	27	64	125	216	343	512	729	1000	1331	1728	2197	2744	3375

**Prime Numbers up to 100:** 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97

**EJOTY Trick (Alphabet Positions):** E=5 J=10 O=15 T=20 Y=25 | A=1 M=13 N=14 Z=26

### Types of Series Covered in This Document

Section	Type	Description	Qs	Key Exams
Section 1	Arithmetic Difference	Fixed or increasing differences (+d, +2d, +3d...)	10	SSC GD, CHSL, RRB NTPC
Section 2	Geometric/Multiplication	Multiply by fixed ratio or increasing multiplier	10	SSC CGL, IBPS PO, RRB NTPC
Section 3	Squares, Cubes & Powers	$n^2$ , $n^3$ , $n^2 \pm k$ , $n^3 \pm k$ patterns	10	SSC CGL, IBPS PO, RBI Grade B
Section 4	Mixed/Combination Ops	$xn+k$ , Fibonacci, Primes, alternating ops	10	IBPS PO Mains, SBI PO, RBI B
Section 5	Wrong Term (Odd One Out)	Find the one term that breaks the pattern	10	IBPS PO, SBI PO, RBI Grade B
Section 6	Simple Letter Series	+n or -n shift in alphabet positions	10	SSC GD, MTS, RRB Group D
Section 7	Letter-Group/Cluster Series	2-4 letter clusters with per-position rules	10	SSC CGL, RRB NTPC, IBPS Clerk

Section 8	Mixed Letter-Number	Letters + numbers combined in one series	10	SSC CGL, CHSL, RRB NTPC
Section 9	Missing Letter (Fill Blank)	Identify blank letters in a sequence	10	SSC GD, MTS, RRB Group D
Section 10	Expected 2025-2026	High-probability patterns for upcoming exams	10	ALL major exams 2025-26
<b>TOTAL</b>	<b>All 10 Types</b>	<b>Complete coverage of Number &amp; Letter Series</b>	<b>100</b>	

## SECTION 1: ARITHMETIC DIFFERENCE SERIES

Terms increase or decrease by a fixed common difference (d), or by differences that themselves form an arithmetic/geometric pattern. This is the most basic and most frequently tested type in SSC GD, SSC CHSL, RRB NTPC, RRB Group D, and Delhi Police exams.

**Key Tip:** Step 1: Subtract consecutive terms to get differences. Step 2: Check if differences are constant (AP), increasing by same amount (second-order AP), or forming a pattern. The most common patterns: +d, +2d, +3d... (increasing diff) or differences of differences are constant.

**Appeared in:** SSC CGL, SSC CHSL, SSC GD, RRB NTPC, RRB Group D, Delhi Police, SSC MTS

**Q1.** 2, 6, 12, 20, 30, 42, ?

**Answer:** 56

**Pattern/Logic:** Differences: +4,+6,+8,+10,+12,+14. Differences increase by +2 each time.  $42+14=56$ .

**Q2.** 1, 4, 9, 16, 25, 36, ?

**Answer:** 49

**Pattern/Logic:** Perfect squares:  $1^2, 2^2, 3^2, 4^2, 5^2, 6^2, 7^2=49$ . Next term =  $7^2=49$ .

**Q3.** 3, 7, 13, 21, 31, 43, ?

**Answer:** 57

**Pattern/Logic:** Differences: +4,+6,+8,+10,+12,+14. Next diff=14, so  $43+14=57$ .

**Q4.** 10, 12, 15, 19, 24, 30, ?

**Answer:** 37

**Pattern/Logic:** Differences: +2,+3,+4,+5,+6,+7. Next diff=7, so  $30+7=37$ .

**Q5.** 1, 3, 6, 10, 15, 21, ?

**Answer:** 28

**Pattern/Logic:** Triangular numbers. Differences: +2,+3,+4,+5,+6,+7. Next= $21+7=28$ .

**Q6.** 5, 10, 17, 26, 37, 50, ?

**Answer:** 65

**Pattern/Logic:** Differences: +5,+7,+9,+11,+13,+15. Next diff=15, so  $50+15=65$ .

**Q7.** 100, 92, 85, 79, 74, 70, ?

**Answer:** 67

**Pattern/Logic:** Differences: -8,-7,-6,-5,-4,-3. Next diff=-3, so  $70-3=67$ .

**Q8.** 2, 3, 5, 8, 12, 17, 23, ?

**Answer:** 30

**Pattern/Logic:** Differences: +1,+2,+3,+4,+5,+6,+7. Next diff=7, so  $23+7=30$ .

**Q9.** 0, 5, 14, 27, 44, 65, ?

**Answer:** 90

**Pattern/Logic:** Differences: +5,+9,+13,+17,+21,+25. Diffs increase by +4. Next diff=25,  $65+25=90$ .

**Q10.** 7, 11, 15, 19, 23, 27, ?

**Answer:** 31

**Pattern/Logic:** Common difference  $d=+4$ . This is a pure AP.  $27+4=31$ .

## SECTION 2: GEOMETRIC & MULTIPLICATION SERIES

Each term is obtained by multiplying the previous term by a fixed ratio ( $r$ ), OR by multiplying by different multipliers that form a pattern. Common in SSC CGL, IBPS PO, SBI PO, RRB NTPC, and UPSC CSAT.

**Key Tip:** Step 1: Divide each term by the previous one to find the ratio. If the ratio is constant = pure GP. If ratios are 2,3,4,5... = increasing multiplier series. Also check: is each term = previous  $\times n$  + constant?

**Appeared in:** SSC CGL, IBPS PO, SBI PO, RRB NTPC, UPSC CSAT, RBI Grade B

**Q11.** 3, 6, 12, 24, 48, 96, ?

**Answer:** 192

**Pattern/Logic:** Each term  $\times 2$ . Pure GP with  $r=2$ .  $96 \times 2=192$ .

**Q12.** 2, 6, 18, 54, 162, ?

**Answer:** 486

**Pattern/Logic:** Each term  $\times 3$ . Pure GP with  $r=3$ .  $162 \times 3=486$ .

**Q13.** 1, 2, 6, 24, 120, 720, ?

**Answer:** 5040

**Pattern/Logic:** Each term  $\times n$  (factorial series):  $\times 2, \times 3, \times 4, \times 5, \times 6, \times 7$ .  $720 \times 7=5040$ .

**Q14.** 5, 10, 20, 40, 80, ?

**Answer:** 160

**Pattern/Logic:** Each term  $\times 2$ . GP with  $r=2$ .  $80 \times 2=160$ .

**Q15.** 4, 12, 36, 108, 324, ?

**Answer:** 972

**Pattern/Logic:** Each term  $\times 3$ . GP with  $r=3$ .  $324 \times 3=972$ .

**Q16.** 1, 3, 9, 27, 81, 243, ?

**Answer:** 729

**Pattern/Logic:** Powers of 3:  $3^0, 3^1, \dots, 3^6=729$ .

**Q17.** 2, 4, 12, 48, 240, ?

**Answer:** 1440

**Pattern/Logic:** Multipliers:  $\times 2, \times 3, \times 4, \times 5, \times 6$ .  $240 \times 6=1440$ .

**Q18.** 7, 14, 28, 56, 112, ?

**Answer:** 224

**Pattern/Logic:** Each term  $\times 2$ . GP.  $112 \times 2=224$ .

**Q19.** 1, 4, 16, 64, 256, ?

**Answer:** 1024

**Pattern/Logic:** Each term  $\times 4$ . GP with  $r=4$ .  $256 \times 4=1024$ .

**Q20.** 6, 18, 54, 162, 486, ?

**Answer:** 1458

**Pattern/Logic:** Each term  $\times 3$ . GP with  $r=3$ .  $486 \times 3=1458$ .

## SECTION 3: SQUARES, CUBES & POWER SERIES

Terms are perfect squares ( $n^2$ ), perfect cubes ( $n^3$ ), or combinations like  $n^2+k$ ,  $n^3-k$ . Very common in SSC CGL, IBPS PO, SBI PO Mains, and RBI Grade B exams.

**Key Tip:** Memorise squares up to  $30^2$  and cubes up to  $15^3$ . Quickly check: are the terms near perfect squares or cubes? Try  $n^2 \pm k$  or  $n^3 \pm k$ . Common patterns:  $n^2+1$ ,  $n^2-n$ ,  $n^3+n$ ,  $n^2+n+1$ .

**Appeared in:** SSC CGL, IBPS PO Mains, SBI PO Mains, RBI Grade B, UPSC CSAT

**Q21.** 1, 8, 27, 64, 125, 216, ?

**Answer:** 343

**Pattern/Logic:** Perfect cubes:  $1^3, 2^3, \dots, 7^3=343$ .

**Q22.** 2, 9, 28, 65, 126, 217, ?

**Answer:** 344

**Pattern/Logic:**  $n^3+1$ :  $1+1=2, 8+1=9, 27+1=28, \dots, 343+1=344$ .

**Q23.** 0, 7, 26, 63, 124, 215, ?

**Answer:** 342

**Pattern/Logic:**  $n^3-1$ :  $1-1=0, 8-1=7, 27-1=26, \dots, 343-1=342$ .

**Q24.** 4, 9, 16, 25, 36, 49, ?

**Answer:** 64

**Pattern/Logic:** Perfect squares starting  $2^2, 3^2, \dots, 8^2=64$ .

**Q25.** 2, 5, 10, 17, 26, 37, ?

**Answer:** 50

**Pattern/Logic:**  $n^2+1$ :  $1+1=2, 4+1=5, 9+1=10, \dots, 49+1=50$ .

**Q26.** 3, 12, 27, 48, 75, 108, ?

**Answer:** 147

**Pattern/Logic:**  $3n^2$ :  $3 \times 1=3, 3 \times 4=12, 3 \times 9=27, \dots, 3 \times 49=147$ .

**Q27.** 1, 4, 9, 16, 25, ?

**Answer:** 36

**Pattern/Logic:** Perfect squares:  $1^2, 2^2, 3^2, 4^2, 5^2, 6^2=36$ .

**Q28.** 8, 27, 64, 125, 216, ?

**Answer:** 343

**Pattern/Logic:** Perfect cubes:  $2^3, 3^3, 4^3, 5^3, 6^3, 7^3=343$ .

**Q29.** 1, 5, 14, 30, 55, 91, ?

**Answer:** 140

**Pattern/Logic:** Sum of squares series:  $1^2, 1^2+2^2, 1^2+2^2+3^2, \dots$  i.e.,  $n(n+1)(2n+1)/6$ .  $n=7$ :  $7 \times 8 \times 15/6=140$ .

**Q30.** 2, 10, 30, 68, 130, 222, ?

**Answer:** 350

**Pattern/Logic:**  $n^3+n$ :  $1+1=2, 8+2=10, 27+3=30, 64+4=68, 125+5=130, 216+6=222, 343+7=350$ .

## SECTION 4: MIXED / COMBINATION OPERATION SERIES

Operations alternate or combine:  $xn+k, \div n-k, xn$  then  $+prime$ , etc. This is the trickiest number series type — common in IBPS PO Mains, SBI PO Mains, RBI Grade B, and SSC CGL Tier 2.

**Key Tip:** Try:  $xn+k, xn-k$ , alternating  $+/\times$ , or two interleaved series. If no simple pattern: check if alternate terms form their own series (odd-positioned and even-positioned separately).

**Appeared in:** IBPS PO Mains, SBI PO Mains, RBI Grade B, SSC CGL Tier 2, LIC AAO

**Q31.** 5, 12, 39, 160, 805, ?

**Answer:** 4836

**Pattern/Logic:**  $x2+2, x3+3, x4+4, x5+5, x6+6$ .  $805 \times 6 + 6 = 4836$ .

**Q32.** 3, 4, 8, 17, 33, ?

**Answer:** 58

**Pattern/Logic:** Differences:  $+1, +4, +9, +16, +25$ . Differences are  $1^2, 2^2, 3^2, 4^2, 5^2$ . Next diff = 25,  $33+25=58$ .

**Q33.** 2, 5, 11, 23, 47, 95, ?

**Answer:** 191

**Pattern/Logic:**  $x^2+1$ :  $2 \times 2+1=5$ ,  $5 \times 2+1=11$ ,  $11 \times 2+1=23$ ,...  $95 \times 2+1=191$ .

**Q34.** 1, 2, 3, 5, 8, 13, 21, ?

**Answer:** 34

**Pattern/Logic:** Fibonacci: each term = sum of previous two.  $13+21=34$ .

**Q35.** 6, 11, 21, 41, 81, 161, ?

**Answer:** 321

**Pattern/Logic:**  $x^2-1$ :  $6 \times 2-1=11$ ,  $11 \times 2-1=21$ ,...  $161 \times 2-1=321$ .

**Q36.** 4, 7, 16, 43, 124, ?

**Answer:** 367

**Pattern/Logic:**  $x^3-5$ ,  $x^3+5$  alternating? Try  $x^3-5$ :  $4 \times 3-5=7$ ,  $7 \times 3-5=16$ ,  $16 \times 3-5=43$ ,  $43 \times 3-5=124$ ,  $124 \times 3-5=367$ .

**Q37.** 10, 12, 15, 19, 24, 30, 37, ?

**Answer:** 45

**Pattern/Logic:** Differences: +2,+3,+4,+5,+6,+7,+8. Next= $37+8=45$ .

**Q38.** 1, 1, 2, 3, 5, 8, 13, 21, 34, ?

**Answer:** 55

**Pattern/Logic:** Fibonacci sequence.  $21+34=55$ .

**Q39.** 2, 3, 5, 7, 11, 13, 17, 19, ?

**Answer:** 23

**Pattern/Logic:** Prime number series. Next prime after 19=23.

**Q40.** 7, 8, 18, 57, 232, ?

**Answer:** 1165

**Pattern/Logic:**  $x^1+1$ ,  $x^2+2$ ,  $x^3+3$ ,  $x^4+4$ ,  $x^5+5$ .  $232 \times 5+5=1165$ .

## SECTION 5: WRONG TERM / ODD ONE OUT IN NUMBER SERIES

One term in the series does NOT follow the pattern. You must identify it. This is tested in IBPS PO, SBI PO, RRB PO Mains, RBI Grade B, and LIC AAO — often as the hardest question in the number-series set.

**Key Tip:** Find the pattern using the terms that 'look right'. Then verify EACH term against the pattern. The one that breaks the pattern = wrong term. Always check ALL terms, not just the middle ones.

**Appeared in:** IBPS PO, SBI PO, RRB PO Mains, RBI Grade B, LIC AAO, NABARD

**Q41.** Find the wrong term: 2, 4, 8, 16, 32, 64, 128, 256, 510

**Answer:** 510 (should be  $512 = 2^9$ )

**Pattern/Logic:** GP with  $r=2$ .  $256 \times 2=512$ , not 510. Wrong term: 510.

**Q42.** Find the wrong term: 1, 4, 9, 16, 24, 36

**Answer:** 24 (should be  $25 = 5^2$ )

**Pattern/Logic:** Perfect squares.  $5^2=25$ , not 24. Wrong term: 24.

**Q43.** Find the wrong term: 3, 7, 15, 31, 60, 127

**Answer:** 60 (should be 63)

**Pattern/Logic:**  $x^2+1$ :  $3 \times 2+1=7$ ,  $7 \times 2+1=15$ ,  $15 \times 2+1=31$ ,  $31 \times 2+1=63$ ,  $63 \times 2+1=127$ . Wrong term: 60.

**Q44.** Find the wrong term: 5, 10, 20, 40, 80, 140, 320

**Answer:** 140 (should be 160)

**Pattern/Logic:** GP with  $r=2$ .  $80 \times 2=160$ , not 140. Wrong term: 140.

**Q45.** Find the wrong term: 1, 8, 27, 64, 126, 216

**Answer:** 126 (should be  $125 = 5^3$ )

**Pattern/Logic:** Perfect cubes.  $5^3=125$ , not 126. Wrong term: 126.

**Q46.** Find the wrong term: 2, 5, 10, 17, 28, 37

**Answer:** 28 (should be 26)

**Pattern/Logic:**  $n^2+1$ :  $1+1=2, 4+1=5, 9+1=10, 16+1=17, 25+1=26, 36+1=37$ . Wrong term: 28.

**Q47.** Find the wrong term: 6, 12, 21, 33, 46, 63

**Answer:** 46 (should be 48)

**Pattern/Logic:** Differences:  $+6, +9, +12, +15, +18$ .  $33+15=48$ , not 46. Wrong term: 46.

**Q48.** Find the wrong term: 3, 6, 12, 24, 96, 192

**Answer:** 96 (should be 48)

**Pattern/Logic:** GP  $r=2$ : 3, 6, 12, 24, 48, 96, 192. But  $24 \times 2 = 48$  should come before 96. Sequence given skips 48. Wrong term: 96.

**Q49.** Find the wrong term: 8, 27, 64, 125, 218, 343

**Answer:** 218 (should be  $216 = 6^3$ )

**Pattern/Logic:** Perfect cubes:  $2^3, 3^3, \dots, 6^3 = 216$ , not 218. Wrong term: 218.

**Q50.** Find the wrong term: 1, 3, 7, 15, 31, 64, 127

**Answer:** 64 (should be 63)

**Pattern/Logic:**  $x \times 2 + 1$ :  $1 \times 2 + 1 = 3, 3 \times 2 + 1 = 7, 7 \times 2 + 1 = 15, 15 \times 2 + 1 = 31, 31 \times 2 + 1 = 63, 63 \times 2 + 1 = 127$ . Wrong term: 64.

## SECTION 6: SIMPLE LETTER SERIES (Alphabet Position Shift)

Letters shift forward or backward by a fixed number of positions in the alphabet. This is the simplest letter series type — tested in every government exam from SSC GD to UPSC CSAT.

**Key Tip:** Write alphabet positions: A=1, B=2, ..., Z=26. Calculate the gap between consecutive letters. If gap is constant = uniform shift. If gap increases = arithmetic progression of shifts. Use the EJOTY trick: E=5, J=10, O=15, T=20, Y=25.

**Appeared in:** SSC GD, SSC MTS, RRB Group D, SSC CHSL, Delhi Police, State PSC

**Q51.** A, C, E, G, I, ?

**Answer:** K

**Pattern/Logic:** Every alternate letter (skip 1).  $+2$  each time.  $I+2=K$ .

**Q52.** B, D, F, H, J, ?

**Answer:** L

**Pattern/Logic:**  $+2$  shift.  $J+2=L$ .

**Q53.** Z, X, V, T, R, ?

**Answer:** P

**Pattern/Logic:**  $-2$  shift (backwards).  $R-2=P$ .

**Q54.** A, E, I, M, Q, ?

**Answer:** U

**Pattern/Logic:**  $+4$  shift.  $Q+4=U$ .

**Q55.** C, F, I, L, O, ?

**Answer:** R

**Pattern/Logic:**  $+3$  shift.  $O+3=R$ .

**Q56.** Y, W, U, S, Q, ?

**Answer:** O

**Pattern/Logic:**  $-2$  shift.  $Q-2=O$ .

**Q57.** B, E, H, K, N, ?

**Answer:** Q

**Pattern/Logic:**  $+3$  shift.  $N+3=Q$ .

**Q58.** A, B, D, G, K, P, ?

**Answer:** V

**Pattern/Logic:** Differences: +1,+2,+3,+4,+5,+6.  $P+6=V$ .

**Q59.** Z, U, P, K, F, ?

**Answer:** A

**Pattern/Logic:** -5 shift.  $F-5=A$ .

**Q60.** M, J, G, D, ?

**Answer:** A

**Pattern/Logic:** -3 shift.  $D-3=A$ .

## SECTION 7: LETTER-GROUP / CLUSTER SERIES

Groups of 2-4 letters are given as terms. You must find the pattern among the groups — each letter in the cluster may shift independently, or the group itself follows a rule. Tested in SSC CGL, SSC CHSL, RRB NTPC, and banking prelims.

**Key Tip:** Analyse each position within the group separately. First letters of all groups form one series, second letters form another, and so on. Track each column independently.

**Appeared in:** SSC CGL, SSC CHSL, RRB NTPC, IBPS Clerk, RRB ALP, Delhi Police

**Q61.** AB, DE, GH, JK, ?

**Answer:** MN

**Pattern/Logic:** Groups skip 1 letter between them (C,F,I,L). First of each: A(1),D(4),G(7),J(10),M(13). +3 each group. Next: MN.

**Q62.** AZ, BY, CX, DW, ?

**Answer:** EV

**Pattern/Logic:** First letter +1 (A,B,C,D,E). Second letter -1 (Z,Y,X,W,V). Next: EV.

**Q63.** BEH, CFI, DGJ, ?

**Answer:** EHK

**Pattern/Logic:** Each letter in every group +1 from previous group.  $B+1=C+1=D+1=E$ ;  $E+1=F+1=G+1=H$ ;  $H+1=I+1=J+1=K$ . Next: EHK.

**Q64.** ACE, BDF, CEG, ?

**Answer:** DFH

**Pattern/Logic:** Each group shifts +1:  $A+1=B, C+1=D, E+1=F \rightarrow BDF$ ;  $B+1=C, D+1=E, F+1=G \rightarrow CEG$ ;  $C+1=D, E+1=F, G+1=H \rightarrow DFH$ .

**Q65.** AEI, BFJ, CGK, ?

**Answer:** DHL

**Pattern/Logic:** First +1(A,B,C,D), Second +1(E,F,G,H), Third +1(I,J,K,L). Next: DHL.

**Q66.** BC, EF, HI, KL, ?

**Answer:** NO

**Pattern/Logic:** Groups: BC(2,3), EF(5,6), HI(8,9), KL(11,12), NO(14,15). Each group +3 from previous. Next: NO.

**Q67.** MN, LO, KP, JQ, ?

**Answer:** IR

**Pattern/Logic:** First letter -1(M,L,K,J,I). Second letter +1(N,O,P,Q,R). Next: IR.

**Q68.** ABD, BCE, CDF, ?

**Answer:** DEG

**Pattern/Logic:** Each letter in groups shifts +1 group-by-group.  $A+1=B, B+1=C, D+1=E \rightarrow BCE$ ;  $B+1=C, C+1=D, E+1=F \rightarrow CDF$ ;  $C+1=D, D+1=E, F+1=G \rightarrow DEG$ .

**Q69.** ZYX, WVU, TSR, ?

**Answer:** QPO

**Pattern/Logic:** Groups of 3 consecutive letters in reverse, each group continuing backwards. ZYX, WVU (skip nothing), TSR, QPO.

**Q70.** BDF, CEG, DFH, ?

**Answer:** EGI

**Pattern/Logic:** First +1(B,C,D,E), Second +1(D,E,F,G), Third +1(F,G,H,I). Next: EGI.

## SECTION 8: MIXED LETTER-NUMBER SERIES

Series combines both letters and numbers in a pattern. Letters may use alphabet positions, and numbers follow arithmetic/geometric rules. Very popular in SSC CGL, RRB NTPC, and State PSC exams.

**Key Tip:** Separate the letters and numbers. Analyse each component independently. Then recombine. Common patterns: letter position + arithmetic number, or letter = position number equivalent.

**Appeared in:** SSC CGL, SSC CHSL, RRB NTPC, Delhi Police, State PSC, SSC GD

**Q71.** A1, B3, C5, D7, ?

**Answer:** E9

**Pattern/Logic:** Letters +1(A,B,C,D,E). Numbers odd series +2(1,3,5,7,9). Next: E9.

**Q72.** A2, B4, C8, D16, ?

**Answer:** E32

**Pattern/Logic:** Letters +1. Numbers  $\times 2$ . Next: E32.

**Q73.** Z1, Y2, X4, W8, ?

**Answer:** V16

**Pattern/Logic:** Letters -1(Z,Y,X,W,V). Numbers  $\times 2$ (1,2,4,8,16). Next: V16.

**Q74.** A1Z, B4X, C9V, ?

**Answer:** D16T

**Pattern/Logic:** First: +1(A,B,C,D). Middle:  $1^2, 2^2, 3^2, 4^2=16$ . Last: -2(Z,X,V,T). Next: D16T.

**Q75.** 2B, 5E, 10J, 17Q, ?

**Answer:** 26Z

**Pattern/Logic:** Numbers:  $n^2+1$  ( $1+1=2, 4+1=5, 9+1=10, 16+1=17, 25+1=26$ ). Letters: positions 2,5,10,17,26  $\rightarrow$  B,E,J,Q,Z. Next: 26Z.

**Q76.** A3, C6, E12, G24, ?

**Answer:** I48

**Pattern/Logic:** Letters skip 1 (+2: A,C,E,G,I). Numbers  $\times 2$ (3,6,12,24,48). Next: I48.

**Q77.** M1, N4, O9, P16, Q25, ?

**Answer:** R36

**Pattern/Logic:** Letters +1. Numbers perfect squares  $1^2, 2^2, \dots, 6^2=36$ . Next: R36.

**Q78.** 1A, 4D, 9I, 16P, ?

**Answer:** 25Y

**Pattern/Logic:** Numbers:  $1^2, 2^2, 3^2, 4^2, 5^2=25$ . Letters: positions 1,4,9,16,25=A,D,I,P,Y. Next: 25Y.

**Q79.** B2, D4, F8, H16, ?

**Answer:** J32

**Pattern/Logic:** Letters +2(B,D,F,H,J). Numbers  $\times 2$ (2,4,8,16,32). Next: J32.

**Q80.** A1, C4, F9, J16, O25, ?

**Answer:** U36

**Pattern/Logic:** Letters: +2,+3,+4,+5,+6(A,C,F,J,O,U). Numbers:  $1^2, 2^2, 3^2, 4^2, 5^2, 6^2=36$ . Next: U36.

## SECTION 9: MISSING LETTER IN PATTERN (Fill in the Blank)

A series of letters is given with one or more blanks. You must identify the repeating or progressing pattern and fill in the missing letter(s). Very common in SSC GD, SSC MTS, RRB Group D, Delhi Police, and State PSC exams.

**Key Tip:** Read the full sequence first. Look for repeating blocks (cyclic pattern), or a progressing pattern. Write out the full alphabet and mark which letters are used. Count positions of given letters to spot the rule.

**Appeared in:** SSC GD, SSC MTS, RRB Group D, Delhi Police Constable, State PSC, SSC CHSL

**Q81.** a b \_ b a a \_ b a b \_ a

**Answer:** a, b, b

**Pattern/Logic:** Repeating group: a b b / a a b / a b b / a a b... Pattern: positions cycle. Blanks: a, b, b.

**Q82.** B \_ D E \_ G H \_ J

**Answer:** C, F, I

**Pattern/Logic:** Alphabet in order: A B C D E F G H I J. Missing: C, F, I.

**Q83.** A \_ C \_ E \_ G

**Answer:** B, D, F

**Pattern/Logic:** Alternate letters: A B C D E F G. Missing: B, D, F.

**Q84.** Z \_ X \_ V \_ T

**Answer:** Y, W, U

**Pattern/Logic:** Backward by 2: Z, Y, X, W, V, U, T. Missing: Y, W, U.

**Q85.** \_ bc \_ ca \_ ab \_ bc

**Answer:** a, b, a (pattern: abc abc abc)

**Pattern/Logic:** Repeating block abc: a|bc|a|ca → aabc|bca|abc... Pattern abc/bca/cab cyclic. Simpler: abc abc repeating: a\_bc\_ca\_ab\_bc: positions 1,4,7,10... are a,b,a,b. Missing: a,b,a.

**Q86.** A B \_ D \_ F G \_ I

**Answer:** C, E, H

**Pattern/Logic:** Full alphabet sequence. C follows B, E follows D, H follows G. Missing: C, E, H.

**Q87.** P \_ R \_ T \_ V

**Answer:** Q, S, U

**Pattern/Logic:** Alternate letters going forward from P. Missing: Q, S, U.

**Q88.** \_ QR \_ ST \_ UV

**Answer:** P, R, T

**Pattern/Logic:** Groups: PQR, RST, TUV — each group shares one letter. Missing first letters: P, R(=3rd of PQR), T.

**Q89.** a \_ c a b \_ a b c \_ b c

**Answer:** b, c, a

**Pattern/Logic:** Repeating block: abc. a\_c=a[b]c, ab\_=ab[c], \_bc=[a]bc. Missing: b, c, a.

**Q90.** D G \_ M P \_ V

**Answer:** J, S

**Pattern/Logic:** +3 each time: D(4),G(7),J(10),M(13),P(16),S(19),V(22). Missing: J, S.

## SECTION 10: IMPORTANT EXPECTED QUESTIONS (2025-2026 Exams)

Based on analysis of SSC CGL 2024, IBPS PO 2024, SBI PO 2024, RRB NTPC 2024, and UPSC CSAT 2024 trends, these question patterns carry the HIGHEST probability of appearing in the 2025-2026 exam cycle.

**Key Tip:** For new-pattern series in banking exams: always check  $xn+n$ ,  $xn-n$ ,  $n^2+\text{prime}$ , and two-interleaved-series patterns. For SSC/Railway: check second-order differences and  $n^2\pm k$ . Practice 10 series daily for speed.

**Appeared in:** SSC CGL 2025, IBPS PO 2025, SBI PO 2025, RRB NTPC 2025, UPSC CSAT 2025, State PSC 2025-26

**Q91.** [SSC CGL 2025 Expected] 2, 6, 12, 20, 30, 42, 56, ?

**Answer:** 72

**Pattern/Logic:** Differences: +4,+6,+8,+10,+12,+14,+16. Next diff=16.  $56+16=72$ . (Differences are even numbers increasing by 2.)

**Q92.** [IBPS PO 2025 Expected] 5, 6, 14, 45, 184, ?

**Answer:** 925

**Pattern/Logic:**  $x1+1, x2+2, x3+3, x4+4, x5+5$ .  $5 \times 1 + 1 = 6$ ,  $6 \times 2 + 2 = 14$ ,  $14 \times 3 + 3 = 45$ ,  $45 \times 4 + 4 = 184$ ,  $184 \times 5 + 5 = 925$ .

**Q93.** [SBI PO 2025 Expected] 8, 9, 20, 63, 256, ?

**Answer:** 1285

**Pattern/Logic:**  $x1+1, x2+2, x3+3, x4+4, x5+5$ :  $8 \times 1 + 1 = 9$ ,  $9 \times 2 + 2 = 20$ ,  $20 \times 3 + 3 = 63$ ,  $63 \times 4 + 4 = 256$ ,  $256 \times 5 + 5 = 1285$ .

**Q94.** [RRB NTPC 2025 Expected] 3, 5, 9, 17, 33, 65, ?

**Answer:** 129

**Pattern/Logic:**  $x2-1$ :  $3 \times 2 - 1 = 5$ ,  $5 \times 2 - 1 = 9$ ,  $9 \times 2 - 1 = 17$ , ...  $65 \times 2 - 1 = 129$ .

**Q95.** [UPSC CSAT 2025 Expected] 1, 2, 4, 7, 11, 16, 22, ?

**Answer:** 29

**Pattern/Logic:** Differences: +1,+2,+3,+4,+5,+6,+7. Next diff=7.  $22+7=29$ .

**Q96.** [SSC CHSL 2025 Expected] Find wrong term: 4, 9, 20, 43, 90, 185, 372

**Answer:** 90 (should be 88)

**Pattern/Logic:**  $x2+2, x2+2...$   $4 \times 2 + 2 = 10$ ? Try:  $4 \times 2 + 1 = 9$ ,  $9 \times 2 + 2 = 20$ ,  $20 \times 2 + 3 = 43$ ,  $43 \times 2 + 4 = 90$ ,  $90 \times 2 + 5 = 185$ : checks out.  $185 \times 2 + 6 = 376$ ? Not 372. Try:  $n \times 2 + n - 1$ :  $4 \rightarrow 9(\times 2 + 1)$ ,  $9 \rightarrow 20(\times 2 + 2)$ ,  $20 \rightarrow 43(\times 2 + 3)$ ,  $43 \rightarrow 90(\times 2 + 4)$ ,  $90 \rightarrow 185(\times 2 + 5)$ ,  $185 \rightarrow 372(\times 2 + 2 = 372)$ . Hmm inconsistent. Pattern  $x2+1, x2+2, \dots$ :  $4 \times 2 + 1 = 9$ ,  $9 \times 2 + 2 = 20$ ,  $20 \times 2 + 3 = 43$ ,  $43 \times 2 + 4 = 90$ ,  $90 \times 2 + 5 = 185$ ,  $185 \times 2 + 6 = 376 \neq 372$ . Wrong: 372 (should be 376).

**Q97.** [Delhi Police 2025 Expected] AZ, CX, EV, GT, ?

**Answer:** IR

**Pattern/Logic:** First letters: A,C,E,G,I (+2 each). Second letters: Z,X,V,T,R (-2 each). Next: IR.

**Q98.** [RRB Group D 2025 Expected] A2, D5, G10, J17, M26, ?

**Answer:** P37

**Pattern/Logic:** Letters +3(A,D,G,J,M,P). Numbers: 2,5,10,17,26,37 (differences +3,+5,+7,+9,+11 — odd numbers). Next: P37.

**Q99.** [IBPS Clerk 2025 Expected] B4D, D9F, F16H, H25J, ?

**Answer:** J36L

**Pattern/Logic:** First +2(B,D,F,H,J). Middle:  $2^2, 3^2, 4^2, 5^2, 6^2 = 36$ . Last +2(D,F,H,J,L). Next: J36L.

**Q100.** [State PSC 2025 Expected] 7, 13, 25, 49, 97, ?

**Answer:** 193

**Pattern/Logic:**  $x2-1$ :  $7 \times 2 - 1 = 13$ ,  $13 \times 2 - 1 = 25$ ,  $25 \times 2 - 1 = 49$ ,  $49 \times 2 - 1 = 97$ ,  $97 \times 2 - 1 = 193$ .

**Spot the Pattern | Verify Every Term | Score Full Marks!**

All the best for your Government Exam Preparation!