CHAPTER

9

Number Series, Coding-Decoding and Odd Man Out

THIS CHAPTER CONSISTS OF 3 PARTS

- SERIES
- CODING DECODING
- ODD MAN OUT SERIES

SERIES:

- Number Series
- Alphabet Series
- Letter Series

NUMBER SERIES

Number series refers to a sequence of numbers that follows a specific pattern. In this type of series, one term is usually missing, and the task is to identify the missing term based on the given pattern. These questions test your ability to recognize numerical patterns and apply them to solve problems.

Here are a few examples of number series:

E.g.: 1, 2, 3, 4, __ , 6, 7, 8

In this series, the numbers increase by 1 in each step, except for the missing term. The missing term is 5, as it follows the pattern of incrementing by 1.

E.g.: __ , 9, 16, 25, 36, 49

Here, __ , 3^2, 4^2, 5^2, 6^2, 7^2

In this series, the numbers are squares of consecutive numbers.

The missing term is 4, as it is the square of 2 i.e., $2^2 = 4$

Example 1. What comes next in the sequence: 7, 10, 14, 19, 25, ?

(a) 30 (b) 32 (c) 36 (d) 42

Sol. (b) Given sequence: 7, 70, 14, 19, 25, ?

The sequence follows a pattern:

i.e., 7 + 3 = 10

10 + 4 = 14

14 + 5 = 19

19 + 6 = 25

Thus, the missing number is 25 + 7 = 32

Hence, the correct option is (b) i.e., 32.

Example 2. What number should come next: 58, 52, 46, 40, 34, ...?

(a) 40 (b) 28 (c) 30 (d) 26

Sol. (b) Given, 58, 52, 46, 40, 34, ...

The given sequence decreases by 6 each time i.e.,

58 – 6 = 52

52 – 6 = 46

46 – 6 = 40

40 – 6 = 34

Following this pattern, the next number = 34 – 6 = 28

Therefore, the next number in the sequence should be 28.

Hence, the correct option is (b) i.e., 28.

Example 3. What number should come next in the following sequence?

8, 16, 32, 64,...

(a) 80 (b) 96 (c) 128 (d) 256

Sol. (c) Given, 8, 16, 32, 64,...

In this sequence, each term is obtained by multiplying the previous term by 2.

Starting with 8, we multiply it by 2 to get 16. Then, we multiply 16 by 2 to get 32, and so on.

Continuing the sequence, we get

The missing number = 64 × 2 = 128

Therefore, the missing number is 128.

Hence, the correct option is (c).

Example 4. What comes next in the sequence: 16,8 , 4, 2, 1, ...

(a) 0 (b) –2 (c) 0.2 (d) 0.5

Sol. (d) Given sequence: 16,8 , 4, 2, 1, ...

In this sequence, each term is obtained by dividing the previous term by 2 i.e.,

16 ÷ 2 = 8

8 ÷ 2 = 4

4 ÷ 2 = 2

2 ÷ 2 = 1

Thus, the missing term $= 1 \div 2 = \frac{1}{2} = 0.5$

Hence, the correct option is (d) i.e, 0.5.

Example 5. What comes next in the sequence?

7, 10, 8, 11, 9, 12, ...

(a) 10 (b) 15 (c) 9 (d) None of these

Sol. (a) Given sequence: 7, 10, 8, 11, 9, 12, ...

On observing the pattern:

$7 + 3 = 10$

$10 - 2 = 8$

$8 + 3 = 11$

$11 - 2 = 9$

$9 + 3 = 12$

Thus, the pattern is: +3, –2, +3, –2, ...

Therefore, the next number is $12 - 2 = 10$

Hence, the correct option is (a) i.e., 10.

Example 6. In the sequence, 8, 6, 9, 23, 87, ... What number should come next?

(a) 174 (b) 226 (c) 324 (d) 429

Sol. (d) Given, 8, 6, 9, 23, 87, ...

On observing the pattern, we get

$8 \times 1 - 2 = 6$

$6 \times 2 - 3 = 9$

$9 \times 3 - 4 = 23$

$23 \times 4 - 5 = 87$

$87 \times 5 - 6 = 429$

Therefore, the missing term is 429.

Hence, the correct option is (d) i.e., 429.

Example 7. The next two terms of the series: 9, 12, 11, 14, 13, 16, 15, ...

(a) 14, 13 (b) 18, 21 (c) 14, 17 (d) 18, 17

Sol. (d) This is a simple alternating addition and subtraction series i.e.,+3, –1, +3, –1, ...

Thus,

$9 + 3 = 12$

$12 - 1 = 11$

$11 + 3 = 14$

$14 - 1 = 13$

$13 + 3 = 16$

$16 - 1 = 15$

$15 + 3 = 18$

$18 - 1 = 17$

Therefore, the next two numbers are 18 and 17.

Hence, option (d) is the correct answer.

PRACTICE QUESTIONS (PART A)

1. What number should come next?

544, 509, 474, 439, ...

(a) 484 (b) 445 (c) 404 (d) 474

2. What number should come next: 3, 8, 27 , 112, ... ?
(a) 256 (b) 408 (c) 565 (d) None of the above

3. 5, 2, 7, 9, 16, 25, 41, ? **(ICAI)**
(a) 65 (b) 66 (c) 67 (d) 68

4. The number that comes next in the sequence 5.2, 4.8, 4.4, 4, ... is
(a) 3.3 (b) 3.6 (c) 3.8 (d) 4.2

5. Find the missing number in the sequence, 165, 195, 255, 285, ?, 375
(a) 345 (b) 390 (c) 335 (d) 395

6. Look at the series: 14, 28, 20, 40, 32, 64, ... What number should come next?
(a) 52 (b) 56 (c) 96 (d) 128

7. Look at the series: 1.5, 2.3, 3.1, 3.9, ... What number should come next?
(a) 4.2 (b) 4.4 (c) 4.7 (d) 5.1

8. In the sequence, 80, 10, 70, 15, 60, ... What number should come next?
(a) 25 (b) 30 (c) 40 (d) 55

9. 120, 99, ?, 63, 48, 35 **(ICAI)**
(a) 80 (b) 36 (c) 45 (d) 40

10. What is the next term of the series: 6, 16, 44, 126, 370, ?
(a) 1100 (b) 1250 (c) 1055 (d) None of the above

Answer Key										
1. (c)	**2.** (c)	**3.** (b)	**4.** (b)	**5.** (a)	**6.** (b)	**7.** (c)	**8.** (a)	**9.** (a)	**10.** (a)	

ALPHABET SERIES

Alphabet series involves a sequence of alphabets arranged in a specific pattern. The goal is to identify the pattern and find the missing term or predict the next term in the series.

The alphabetical position of each letter is as follow:

A	B	C	D	E	F	G	H	I	J	K	L	M
1	2	3	4	5	6	7	8	9	10	11	12	13

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
14	15	16	17	18	19	20	21	22	23	24	25	26

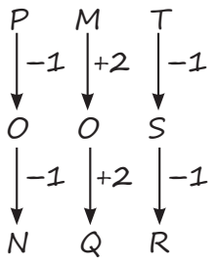
E.g.: . B, D, F, H, _

To find the next term in this series, we need to consider the pattern. Here, each letter is two positions ahead of the previous one in the English alphabet.

Applying this pattern, the next term is H + 2 = J.

Example 8. Complete this series PMT, OOS, NQR, ?

We have,



By examining the series, we can observe the following pattern:

The first letter in each term is moving in reverse alphabetical order.

The second letter in each term is increasing by 2 positions in the English alphabet.

The third letter in each term is also moving in reverse alphabetical order.

Applying this pattern, the next term in the series would be MSQ.

Therefore, the complete series would be: PMT, OOS, NQR, MSQ.

LETTER SERIES

Letter series involves a sequence of lowercase letters following a consistent pattern. The task is to identify the pattern and determine the missing term.

E.g.: _ _ a b a _ _ b a _ a b

Here, the given series is following the pattern:

ab / ab / ab / ab / ab / ab

i.e., the pattern 'ab' is repeated.

Therefore, the pattern will be a b a b a b a b a b a b

Thus, the missing letters are: abbab

Example 9. What is the missing term?

RST, WXY, BCD, ____ , KLM

(a) CDE (b) DEF (c) GIH (d) GHI

Sol. (d) Given, RST, WXY, BCD, ____ , KLM

On observing the pattern, we see that

The letters in each term are in order and the first letter of the next term is three positional ahead of the last letter of preceding term i.e.,

First term = RST

First letter of next term = T + 3 = W

Thus, second term = WXY

First letter of next term= Y + 3 = B

Thus, third term = BCD

Now, first letter of next term = D + 3 = G

Thus, the missing term = GHI

Hence, the correct option is (d) i.e., GHI.

PRACTICE QUESTIONS (PART B)

1. What is the missing term?

   QPO, NML , KJI, ____ , EDC

   (a) HGF (b) CAB (c) JKL (d) GHI

2. The missing letters in _ _ c d c _ _ d c _ c d are

   (a) c d c c d (b) c d d c d (c) c c d c d (d) d d d c d

Answer Key

1. (a) **2.** (b)

CODING AND DECODING

When we talk about Coding and Decoding, there are 2 types:

- Letter coding
- Number coding

LETTER CODING

In letter coding, the real alphabets in a word are replaced by certain other alphabets based on a specific rule. The task for the candidate is to identify the common rule and apply it to answer the given questions. This type of coding requires a keen understanding of the patterns and rules governing the replacement of alphabets.

E.g.: If GOLD is written as IQNF, WIND can be written in the same code as _____

Here, the pattern followed is:

Adding 2 to the place values of the letters.

G + 2 = I, O + 2 = Q, L + 2 = N, D + 2 = F

Therefore, WIND can be written as:

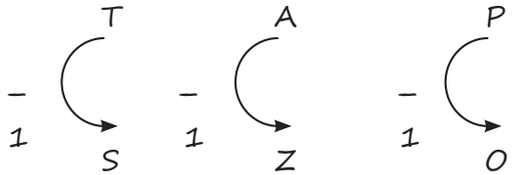
W + 2 = Y, I + 2 = K, N + 2 = P, D + 2 = F

Thus, WIND can be coded as YKPF.

Example 10. If TAP is coded as SZO, then how is FRIEND coded?

(a) EQJDNC (b) EQHDMC (c) GSIEND (d) None of above

Sol. (b) Given, TAP is coded as SZO



Similarly, FRIEND will be coded as EQHDMC.

Hence, the correct option is (b) i.e., EQHDMC.

Example 11. In certain code 'BILLION' is written as 'I B L L O I N'. How is 'HILTON' written in that code?

(a) I H T L O N (b) I H T L N O (c) O H T L I N (d) H I T L N O

Sol. (b) Given, 'BILLION' is coded as 'I B L L O I N'

We observe that the letters are exchanged in pairs

i.e., B I becomes I B, L L becomes L L, I O becomes O I and N remains same since it does not have any pair.

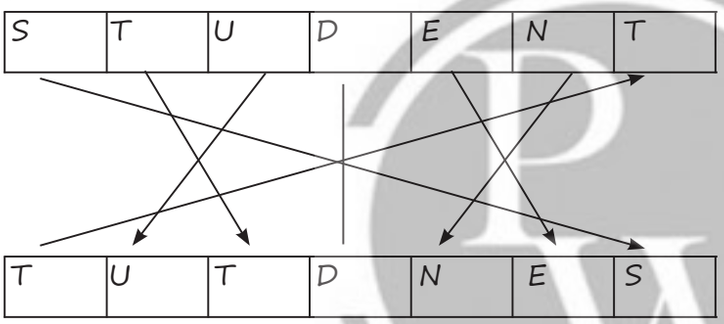
Similarly 'HILTON' can be coded as 'I H T L N O'

Hence, the correct option is (b) i.e., I H T L N O.

Example 12. In a certain code STUDENT is written as TUTDNES. How will SOURCES be written in that code ?

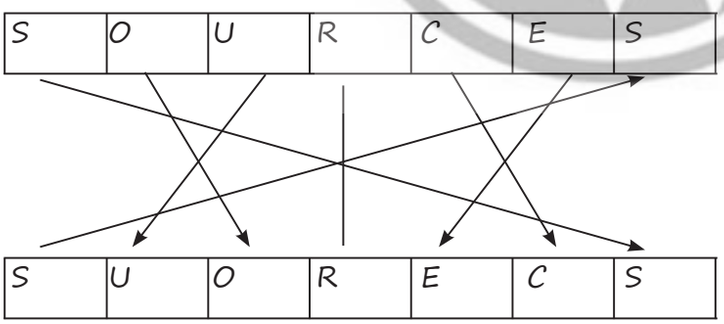
(a) SOURECS (b) SOCRSEU (c) SUORECS (d) SORCESU

Sol. (c) STUDENT is written as TUTDNES,



Similarly,

SOURCES be written in that code as:



Therefore, SOURCES can be written in that code as SUORECS.

Hence, the correct option is (c).

Example 13. In a certain code language, 'PICTURE' is written as 'QHDSVQF'. How would 'BROWSER' be written in that same code language?

(a) CQVVTDS (b) CQPVTDS (c) CQPUTDS (d) CQVPPDS

Sol. (b) 'PICTURE' is written as 'QHDSVQF'

It can be observed that:

P + 1 = Q , I – 1 = H, C + 1 = D, T – 1 = S, U + 1 = V, R – 1 = Q, E + 1 = F

Similarly, for 'BROWSER'

B + 1 = C, R – 1 = Q, O + 1 = P, W – 1 = V , S + 1 = T, E – 1 = D, R + 1 = S

Therefore, BROWSER is written as CQPVTDS in the same code.

Hence, the correct option is (b).

NUMBER CODING:

Number coding involves replacing alphabets with corresponding numerical values based on a specific rule. Each alphabet is assigned a unique numerical value, and the task is to decipher the code by understanding the assigned values and applying the given rule.

There are two types in number coding:

- **When letter is given in a particular number code:**

Example 14. If 'GLOSSORY' is coded as '97533562' and 'GEOGRAPHY' is coded as '915968402', then 'GEOLOGY' can be coded as

(a) 915692 (b) 9157592 (c) 9057592 (d) 9157591

Sol. (b) G → 9, L → 7, O → 5, S → 3, S → 3, O → 5, R → 6, Y → 2

Similarly, 'GEOGRAPHY' is coded as '915968402'

Therefore, GEOLOGY can be coded as: –

G→9, E → 1, O → 5, L → 7, O → 5, G → 9, Y → 2

i.e., 9157592

Hence, option (b) is the correct answer

Example 15. In a certain code ATE is written as 145 and CHAIR is written as 09173, then how TEACHER can be written in the code?

(a) 4501953 (b) 4510953 (c) 4510934 (d) 4530943

Sol. (b) ATE is written as 145

A→1, T→4, E→5

Similarly, CHAIR is written as 09173

C→0, H→9, A→1, 1→7, R→3

Therefore, TEACHER can be written as: –

T→4, E→5, A→1, C→0, H→9, E→5, R→3

i.e., 4510953

Hence, the correct option is (b).

- **When number is given in a particular letter code:**

Example 16. In a certain code, a number 18462 is written as BETKO and 7935 is written as RAHU. How is 43857 written in that code ?

(a) THOEB (b) THROB (c) THKOB (d) THEUR

Sol. (d) 18462 is written as BETKO

1→B, 8→E, 4→T, 6→K, 2→O

Similarly,

7935 is written as RAHU

7→R, 9→A, 3→H, 5→U

Therefore, 43857 can be written as:

4→T, 3→H, 8→E, 5→U, 7→R

i.e., THEUR

Hence, option (d) is the correct answer.

Example 17. If 'RAJU' is coded as 11-12-13-14 and 'JUNK' is coded as 13-14-10-9, then how will you code 'RANK'?

(a) 9-10- 11- 12

(b) 10- 11-12-9

(c) 11-12-10-9

(d) 12-11-10-9

Sol. (c) 'RAJU' is coded as 11 - 12 - 13 - 14

R - 11

A -12

J-13

U -14

Similarly, 'JUNK' is coded as 13 - 14 - 10 - 9

J - 13

U - 14

N - 10

K - 9

Therefore, 'RANK' can be coded as: -

R - 11

A - 12

N - 10

K - 9

i.e. 11 - 12 - 10 - 9

Hence, option (c) is the correct answer.

PRACTICE QUESTIONS (PART C)

1. If EARTH is written as FCUXM in a certain code. How is DELHI written in that code?

   (a) EFMIJ (b) EGOLN (c) EFNJL (d) FGNKM

2. In a certain code, NEWYORK is written as 111, how is NEWZEALAND written in that code?

   (a) 115 (b) 111 (c) 110 (d) 105

3. In a certain code, "TIGER" is written as "74159" and "LION" is written as "6247". How is "GOAT" written in that code?

   (a) 1673 (b) 1467 (c) 4178 (d) 1437

4. LETTER: L E A D I N G

CODE DIGIT: 3 6 1 4 2 5 7

Find out the correctly coded alternative for NGADLIA from amongst the given four alternatives.

(a) 5114312 (b) 4716321 (c) 5714321 (d) None of the above

5. If CLOCK is coded 34235 and TIME is 8679. What will be the code of MOTEL?

(a) 72894 (b) 77684 (c) 72964 (d) 27894

6. If BROTHER is coded 2456784, SISTER coded as 919684, what is coded for BORBERS?

(a) 2542849 (b) 2542898 (c) 2454889 (d) 2524889

Answer Key

1. (b) **2.** (d) **3.** (d) **4.** (c) **5.** (a) **6.** (a)

ODD MAN OUT

Odd Man Out is a problem-solving concept where a series of elements is presented, and the task is to identify the element that does not fit the given pattern or follow the same rule as the other elements.

To identify the Odd Man Out, you need to carefully analyze the given elements and look for any distinguishing features, characteristics, or patterns that set the odd element apart from the others. By identifying the unique element, you can determine the odd one out.

E.g.: 2, 4, 6,8 , 10, 12, 15

In this series of numbers, all the elements are even except for "15." The odd number "15" stands out and does not follow the same pattern as the other even numbers. Therefore, "15" is the Odd Man Out in this series.

Example 18. Find the odd man out of the following given numbers.

(a) 12 (b) 13 (c) 19 (d) 17

Sol. (a) Prime numbers are the numbers which have only two factors,i.e.1 and the number itself.

Here, factors of 12 are:

1, 2, 3, 4, 6, 12 (i.e. more than 2 factors)

whereas all the other numbers except 12 have only two factors (1 and the number itself).

Hence, except for 12, all other numbers are prime numbers.

Therefore, option (a) is the correct answer.

Example 19. Find odd man out of the following:6,9 , 15, 21, 24, 28, 30

(a) 28 (b) 21 (c) 24 (d) 30

Sol. (a) On observing the pattern, we see that

$3 \times 2 = 6$, $3 \times 3 = 9$, $3 \times 5 = 15$, $3 \times 7 = 21$, $3 \times 8 = 24$, $3 \times 10 = 30$

All the numbers except 28 are the multiples of 3.

Hence, option (a) is the correct answer.

Example 20. Select the odd man out:

(a) Cricket (b) Volleyball (c) Fencing (d) Baseball

Sol. (c) Cricket, Volleyball and Baseball are games that are played with the help of a ball while Fencing is a combat sport that features sword fighting.

Hence, Fencing is the odd man out.

Therefore, option (c) is the correct answer.

Example 21. Find odd one out of the following:

41, 43, 47, 53, 61, 71, 75, 83

(a) 75 (b) 73 (c) 71 (d) 53

Sol. (a) We have, 41, 43, 47, 53, 61, 71, 75, 83

All the numbers except the number 75 are prime numbers.

Hence, the correct option is (a).

Example 22. There are four groups of letters in each. Three of these groups are alike in some way while one is different. Find the one which is different.

TRP, YWU, SQO, TVX

(a) TRP (b) YWU (c) SQO (d) TVX

Sol. (d) On observing the pattern, we see that

TRP → T – 2 = R, R – 2 = P

YWU → Y – 2 = W, W – 2 = U

SQO → S – 2 = Q, Q – 2 = O

All the words follow a certain pattern except TVX.

Hence, the correct answer is option (d) i.e. TVX.

Example 23. Find odd man out of the following:

2, 5, 10, 17, 26, 37, 50, 64

(a) 50 (b) 26 (c) 37 (d) 64

Sol. (d) On observing the pattern, we see that

$1^2 + 1 = 2$,

$2^2 + 1 = 5$,

$3^2 + 1 = 10$,

$4^2 + 1 = 17$,

$5^2 + 1 = 25$,

$6^2 + 1 = 37$,

$7^2 + 1 = 50$,

$8^2 + 1 = 65 \neq 64$

Hence, the correct answer is option (d) i.e. 64.

PRACTICE QUESTIONS (PART D)

1. Find the odd one out of the following:
   1, 5, 7, 11, 14, 17, 21
   (a) 5 (b) 11 (c) 14 (d) 21
2. Find the odd one out of the following:
   10, 15, 20, 25, 45, 54, 60, 75, 80
   (a) 80 (b) 75 (c) 45 (d) 54
3. Find the odd one out of the following:
   9, 27, 64, 81, 125, 216, 343
   (a) 27 (b) 81 (c) 216 (d) 343
4. Find odd man out of the following:
   4, 9, 256, 529, 573
   (a) 529 (b) 9 (c) 573 (d) 256
5. Find odd man out of the following:
   January, May, July, November
   (a) January (b) May (c) July (d) November
6. Find odd man out of the following:
   6, 9, 15, 21, 24, 28, 30
   (a) 28 (b) 21 (c) 24 (d) 30
7. Find odd man out of the following:
   1, 5, 14, 30, 51, 55, 91
   (a) 5 (b) 55 (c) 51 (d) 91
8. Find the odd man out of the following: 13, 14, 18, 27, 32, 43, 68
   (a) 27 (b) 43 (c) 32 (d) 68
9. Find the odd one out of the following: 4, 9, 16, 25, 36, 48, 64
   (a) 25 (b) 16 (c) 48 (d) 9

Answer Key

1. (c) **2.** (d) **3.** (b) **4.** (c) **5.** (d) **6.** (a) **7.** (c) **8.** (c) **9.** (c)

PRACTICE QUESTIONS (PART E)

Example 24. In a certain code, RIPPLE is written as 613382 and LIFE is written as 8192. How is PILLER written in that code? **(ICAI, May 2018)**

(a) 318826 (b) 318286 (c) 618826 (d) 338816

Sol. (a) Word RIPPLE is coded as 613382

R I P P L E

6 1 3 3 8 2

Similarly,

Word LIFE is coded as 8192

L I F E

8 1 9 2

On observing the above patterns, we can see that the numbers represent the code for the alphabets.

Thus, the word PILLER can be coded as 318826.

Hence, option (a) is the correct answer.

Example 25. If LOSE is coded as 1357 and GAIN is coded as 2468 what does figure 82146 stands for? **(ICAI, May 2018)**

(a) NGLAI (b) NGLIA (c) GNLIA (d) GNIA

Sol. (a) LOSE is coded as 1357

L – 1, O — 3, S–5, E — 7

Similarly,

GAIN is coded as 2468

G – 2, A – 4, I – 6, N – 8

Therefore, the figure 82146 is for

8 – N, 2 – G, 1 – L, 4 – A, 6 – I

i.e., NGLAI

Hence, option (a) is the correct answer.

Example 26. If PLAY is coded as 8123 and RHYME is coded as 49367. What will be the code of MALE? **(Nov, 2018)**

(a) 6217 (b) 6198 (c) 6395 (d) 6285

Sol. (a) PLAY is coded as 8123

P – 8, L – 1, A – 2, Y – 3

RHYME is coded as 49367

R – 4, H – 9, Y – 3, M – 6, E – 7

On observing the above patterns, we can see that the numbers represent the code for the alphabets.

Then, the code of MALE is:

M – 6

A – 2

L – 1

E – 7

i.e., 6217

Hence, option (a) is the correct answer.

Example 27. Find out the next number in the following series 7, 11, 13, 17, 19, 23, 25, 29 ?

(a) 30 (b) 31 (c) 32 (d) 33 **(Nov, 2018)**

Sol. (b) 7 + 4 = 11
11 + 2 = 13
13 + 4 = 17
17 + 2 = 19
19 + 4 = 23
23 + 2 = 25
25 + 4 = 29
29 + 2 = 31
The next term in the series is 31.
Hence, option (b) is the correct answer.

Example 28. If HONEY is coded as JQPGA.What is the code for VCTIGVU? **(Nov, 2018)**
(a) XEVKIXW (b) TRAPETS (c) TARGETS (d) UMBRELU

Sol. (a) HONEY is coded as JQPGA
H + 2 = J
O + 2 = Q
N + 2 = P
E + 2 = G
Y + 2 = A
Similarly,
VCTIGVU is coded as
V + 2 = X
C + 2 = E
T + 2 = V
I + 2 = K
G + 2 = I
V + 2 = X
U + 2 = W
i.e. XEVKIXW
Hence, option (a) is the correct answer.

Example 29. Find odd out of the following series: 15, 21, 63 ,81, 69. **(Nov, 2018)**
(a) 15 (b) 21 (c) 63 (d) 81

Sol. (d) 15, 21, 63, 81, 69
From the above series 81 is odd one out because only 81 is a perfect square of a number.
Hence, option (d) is the correct answer.

Example 30. Find the odd man out of the following series 7, 9, 13, 17, 19. **(Nov, 2018)**
(a) 7 (b) 9 (c) 19 (d) 13

Sol. (b) Given series: 7, 9, 13, 17, 19
From the above series 9 is odd one out because only 9 is a perfect square of a number.
i.e., $3^2 = 9$
Hence, option (b) is the correct answer.

Example 31. Find the next number of the series: 7, 23, 47, 119, 167,... **(June 2019)**

(a) 211 (b) 223 (c) 287 (d) 319

Sol. (b) $7 = 3^2 - 2$

$23 = 5^2 - 2$

$47 = 7^2 - 2$

$79 = 9^2 - 2$

$119 = 11^2 - 2$

$167 = 13^2 - 2$

Therefore, the next term is $15^2 - 2 = 223$

Hence, option (b) is the correct answer.

Example 32. Find the odd man out of the following: 13, 14, 18, 27, 32, 43, 68.

(a) 27 (b) 43 (c) 32 (d) 68

Sol. (c) Given, 13, 14, 18, 27, 32, 43, 68

The pattern in the given numbers is:

$13 + 1 = 14$

$14 + 4 = 18$

$18 + 9 = 27$

$27 + 16 = 43$

$43 + 25 = 68$

The number 32 does not follow the pattern.

Therefore, the odd one out is 32.

Hence, the correct option is (c).

Example 33. If in a certain language, MADRAS is coded as NBESBT, How is BOMBAY coded in that language? **(Dec, 2019)**

(a) CPNCBX (b) CPNCBZ (c) CPOCBZ (d) CQOCBZ

Sol. (b) M + 1 = N

A + 1 = B

D + 1 = E

R + 1 = S

A + 1 = B

S + 1 = T

Similarly,

B + 1 = C

O + 1 = P

M + 1 = N

B + 1 = C

A + 1 = B

Y + 1 = Z

i.e. CPNCBZ

Hence, option (b) is the correct answer.

Example 34. Which of the following is an odd one out?

(a) CEHL (b) KMPT (c) OQTX (d) NPSV

Sol. (d) C + 2 = E + 3 = H + 4 = L

K + 2 = M + 3 = P + 4 = T

O + 2 = Q + 3 = T + 4 = X

N + 2 = P + 3 = S + 3 = V

Hence, NPSV is an odd one out.

Therefore, option (d) is the correct answer.

Example 35. Look at this series:2, 1 , $\frac{1}{2}$, $\frac{1}{4}$,... What number should come next?

(a) $\frac{1}{3}$ (b) $\frac{1}{8}$ (c) $\frac{1}{9}$ (d) $\frac{1}{16}$

Sol. (b) This is a simple division series: each number is one-half of the previous number. In other terms to say, the number is divided by 2 successively to get the next result:

$2 \div 2 = 1$

$1 \div 2 = \frac{1}{2}$

$\frac{1}{2} \div 2 = \frac{1}{4}$

Next number will be:

$\frac{1}{4} \div 2 = \frac{1}{8}$

Therefore, $\frac{1}{8}$ should come next.

Hence, option (b) is the correct answer.

Example 36. Look at the series: 7, 10, 8, 11, 9, 12, ...What number should come next?

(a) 7 (b) 10 (c) 12 (d) 13

Sol. (b) This is a simple alternating addition and subtraction series. In the first pattern, 3 is added; in the second, 2 is subtracted.

Hence,

7 + 3 = 10

10 – 2 = 8

8 + 3 = 11

11 – 2 = 9

9 + 3 = 12

12 – 2 = 10

10 should come next.

Therefore, option (b) is the correct answer

Example 37. Look at the series: 36, 34, 30, 28, 24,....What number should come next?

(a) 20 (b) 22 (c) 23 (d) 26

Sol. (b) The given series follows the pattern as:

36 – 2 = 34

34 – 4 = 30

30 – 2 = 28

28 – 4 = 24

24 – 2 = 22

Therefore, 22 should come next.

Hence, option (b) is the correct answer.

Example 38. Look at the series: 22, 21, 23, 22, 24, 23,...What number should come next?

(a) 22 (b) 24 (c) 25 (d) 26

Sol. (c) The given series follows the pattern as:

22 – 1 = 21

21 + 2 = 23

23 – 1 = 22

22 + 2 = 24

24 – 1 = 23

23 + 2 = 25

Thus, 25 should come next.

Therefore, option (c) is the correct answer.

Example 39. Look at the series: 53, 53, 40, 40, 27, 27,... What number should come next?

(a) 12 (b) 14 (c) 27 (d) 53

Sol. (b) The given series follows the pattern as:

53 – 13 = 40

40 – 13 = 27

27 – 13 = 14

Now, 14 will be repeated.

Thus, 14 should come next.

Therefore, option (b) is the correct answer.

Example 40. Look at the series: 21, 9, 21, 11, 21, 13, 21, ... What number should come next?

(a) 14 (b) 15 (c) 21 (d) 23

Sol. (b) In this alternating repetition series, the random number 21 is interpolated with every other number into an otherwise simple addition series that increases by 2, beginning with the number 9.

Hence,

9 + 2 = 11

then, 21

11 + 2 = 13

then, 21

13 + 2 = 15

15 should come next.

Therefore, option (b) is the correct answer.

Example 41. Look at the series: 58, 52, 46, 40, 34, ... What number should come next?

(a) 26 (b) 28 (c) 30 (d) 32

Sol. (b) The given series follows the pattern as:

58 – 6 = 52

52 – 6 = 46

46 – 6 = 40

40 – 6 = 34

34 – 6 = 28

Thus, 28 should come next.

Therefore, option (b) is the correct answer.

Example 42. Look at the series: 3, 4, 7, 8, 11, 12, ... What number should come next?

(a) 7 (b) 10 (c) 14 (d) 15

Sol. (d) The given series follows the pattern as:

3 + 1 = 4

4 + 3 = 7

7 + 1 = 8

8 + 3 = 11

11 + 1 = 12

12 + 3 = 15

Thus, 15 should come next.

Therefore, option (d) is the correct answer.

Example 43. Look at the series: 8, 22, 8, 28, 8, ... What number should come next?

(a) 9 (b) 29 (c) 32 (d) 34

Sol. (d) This is a simple addition series with a random number, 8, interpolated as every other number. In the series, 6 is added to each number except 8, starting from 22 to arrive at the next number.

Hence,

22 + 6 = 28

then 8

28 + 6 = 34

Therefore, 34 should come next.

Hence, option (d) is the correct answer.

Example 44. Look at the series: 31, 29, 24, 22, 17, ... What number should come next?

(a) 15 (b) 14 (c) 13 (d) 12

Sol. (a) The given series follows the pattern as:

31 – 2 = 29

29 – 5 = 24

24 – 2 = 22

22 – 5 = 17

17 – 2 = 15

Therefore, 15 should come next.

Hence, option (a) is the correct answer.

Example 45. Look at the series: 2, 4, 6, 8, 10, ... What number should come next?

(a) 11 (b) 12 (c) 13 (d) 14

Sol. (b) The given series follows the pattern as:

2 + 2 = 4

4 + 2 = 6

6 + 2 = 8

8 + 2 = 10

10 + 2 = 12

Thus, 12 should come next.

Therefore, option (b) is the correct answer.

Example 46. Look at the series: 201, 202, 204, 207, ... What number should come next?

(a) 205 (b) 208 (c) 210 (d) 211

Sol. (d) The given series follows the pattern as:

201 + 1 = 202

202 + 2 = 204

204 + 3 = 207

207 + 4 = 211

Thus, 211 should come next.

Therefore, option (d) is the correct answer.

Example 47. Look at the series: 544, 509, 474, 439, ... What number should come next?

(a) 404 (b) 414 (c) 420 (d) 445

Sol. (a) The given series follows the pattern as:

544 – 35 = 509

509 – 35 = 474

474 – 35 = 439

439 – 35 = 404

Thus, 404 should come next.

Therefore, option (a) is the correct answer.

Example 48. Look at the series: 2, 6, 18, 54, ... What number should come next?

(a) 108 (b) 148 (c) 162 (d) 216

Sol. (c) The given series follows the pattern as:

$2 \times 3 = 6$

$6 \times 3 = 18$

$18 \times 3 = 54$

$54 \times 3 = 162$

Therefore, 162 should come next.

Hence, option (c) is the correct answer.

Example 49. Find the missing number: 7, 26, 63, 124, 215, ?, 511 **(ICAI)**

(a) 342 (b) 343 (c) 442 (d) 421

Sol. (a) We have, 7, 26, 63, 124, 215, ?, 511

The pattern follows here is:

$2^3 - 1 = 7$

$3^3 - 1 = 26$

$4^3 - 1 = 63$

$5^3 - 1 = 124$

$6^3 - 1 = 215$

$7^3 - 1 = 342$

$8^3 - 1 = 511$

Hence, the correct option is (a).

Example 50. Look at the series: 5.2, 4.8, 4.4, 4, ... What number should come next?

(a) 3 (b) 3.3 (c) 3.5 (d) 3.6

Sol. (d) In this simple subtraction series, each number decreases by 0.4 i.e.,

$5.2 - 0.4 = 4.8$

$4.8 - 0.4 = 4.4$

$4.4 - 0.4 = 4$

$4 - 0.4 = 3.6$

Therefore, 3.6 should come next.

Hence, option (d) is the correct answer.

Example 51. Look at the series: 8, 6, 9, 23, 87, ... What number should come next?

(a) 128 (b) 226 (c) 324 (d) 429

Sol. (d) The given series follows the pattern as:

$8 \times 1 - 2 = 6$

$6 \times 2 - 3 = 9$

$9 \times 3 - 4 = 23$

$23 \times 4 - 5 = 87$

$87 \times 5 - 6 = 429$

Therefore, 429 should come next.

Hence, option (d) is the correct answer.

Example 52. The next two terms of the series: 28, 25, 5, 21, 18, 5, 14, ...

(a) 11, 5 (b) 10, 7 (c) 11, 8 (d) 5, 10

Sol. (a) This is an alternating subtraction series with the interpolation of a random number, 5, as every third number. In the subtraction series, 3 is subtracted, then 4, then 3, and so on.

Thus,

28 – 3 = 25

then 5

25 – 4 = 21

21 – 3 = 18

then 5

18 – 4 = 14

14 – 3 = 11

then 5

i.e., 11, 5

Therefore, option (a) is the correct answer.

Example 53. The next two terms of the series: 8, 11, 21, 15, 18, 21, 22,...

(a) 25, 18 (b) 25, 21 (c) 25, 29 (d) 24, 21

Sol. (b) This is an alternating addition series, with a random number, 21, interpolated as every third number. The addition series alternates between adding 3 and adding 4. The number 21 appears after each number arrived at by adding 3.

Hence,

8 + 3 = 11

then 21

11 + 4 = 15

15 + 3 = 18

then 21

18 + 4 = 22

22 + 3 = 25

then 21

i.e. 25, 21

Therefore, option (b) is the correct answer.

Example 54. The next two terms of the series: 9, 16, 23, 30, 37, 44, 51,.....

(a) 59, 66 (b) 56, 62 (c) 58, 66 (d) 58, 65

Sol. (d) Here is a simple addition series, which begins with 9 and adds 7.

Hence,

9 + 7 = 16

16 + 7 = 23

23 + 7 = 30

30 + 7 = 37

37 + 7 = 44

44 + 7 = 51

51 + 7 = 58

58 + 7 = 65

i.e., 58, 65

Therefore, option (d) is the correct answer.

Example 55. The next two terms of the series: 2, 8, 14, 20, 26, 32, 38,...

(a) 2, 46 (b) 44, 50 (c) 42, 48 (d) 40, 42

Sol. (b) This is a simple addition series, which begins with 2 and adds 6.

Hence,

2 + 6 = 8

8 + 6 = 14

14 + 6 = 20

20 + 6 = 26

26 + 6 = 32

32 + 6 = 38

38 + 6 = 44

44 + 6 = 50

i.e., 44,50

Therefore, option (b) is the correct answer.

Example 56. The next two terms of the series: 9, 11, 33, 13, 15, 33, 17, ...

(a) 19, 33 (b) 33, 35 (c) 33, 19 (d) 15, 33

Sol. (a) In this alternating repetition series, a random number, 33, is interpolated every third number into a simple addition series in which each number increases by 2.

Hence,

9 + 2 = 11

then 33

11 + 2 = 13

13 + 2 = 15

then 33

15 + 2 = 17

17 + 2 = 19

then 33

i.e., 19,33

Therefore, option (a) is the correct answer.

Example 57. The next two terms of the series: 2, 3, 4, 5, 6, 4, 8,...

(a) 9, 10 (b) 4, 8 (c) 10, 4 (d) 9, 4

Sol. (d) This is an alternating addition series with a random number, 4, interpolated as every third number. In the main series, 1 is added, then 2 is added, then 1, then 2, and so on.

Hence,

2 + 1 = 3

then 4

3 + 2 = 5

5 + 1 = 6

then 4

6 + 2 = 8

8 + 1 = 9

then 4

i.e.,9,4

Therefore, option (d) is the correct answer.

Example 58. The next two terms of the series: 17, 17, 34, 20, 20, 31, 23, ...

(a) 26, 23 (b) 34, 20 (c) 23, 33 (d) 23, 28

Sol. (d) This is an alternating subtraction series with repetition. There are two different patterns here. In the first, a number repeats itself; then 3 is added to that number to arrive at the next number, which also repeats. This gives the series 17, 17, 20, 20, 23 and so on.

Further, every third number follows a second pattern, in which 3 is subtracted from each number to arrive at the next: 34, 31, 28.

i.e., 23 28

Therefore, option (d) is the correct answer.

Example 59. The next two terms of the series: 6,20,8,14,10,8,12,...

(a) 14, 10 (b) 2, 18 (c) 4, 12 (d) 2, 14

Sol. (d) This is an alternating addition and subtraction series. In the first pattern, 2 is added to each number to arrive at the next; in the alternate pattern, 6 is subtracted from each number to arrive at the next.

Thus,

6 + 2 = 8

8 + 2 = 10

10 + 2 = 12

12 + 2 = 14

Other series:-

20 – 6 = 14

14 – 6 = 8

8 – 6 = 2

i.e., 2 ,14

Therefore, option (d) is the correct answer.

Example 60. The next two terms of the series: 21, 25, 18, 29, 33, 18, ...

(a) 43, 18 (b) 41, 44 (c) 37, 18 (d) 37, 41

Sol. (d) This is a simple addition series with a random number, 18, interpolated as every third number. In the series, 4 is added to each number except 18, to arrive at the next number.

Hence,

21 + 4 = 25

then 18

25 + 4 = 29

29 + 4 = 33

then 18

33 + 4 = 37

37 + 4 = 41

i.e., 37 ,41

Therefore, option (d) is the correct answer.

Example 61. The next two terms of the series: 75, 65, 85, 55, 45, 85, 35, ...

(a) 25, 15 (b) 25, 85 (c) 35, 25 (d) 85, 35

Sol. (b) This is a simple subtraction series in which a random number, 85, is interpolated as every third number. In the subtraction series, 10 is subtracted from each number to arrive at the next.

Hence,

75 – 10 = 65

then 85

65 – 10 = 55

55 – 10 = 45

then 85

45 – 10 = 35

35 – 10 = 25

then 85

i.e., 25 ,85

Therefore, option (b) is the correct answer.

Example 62. The next two terms of the series 11, 16, 21, 26, 31, 36, 41,... are

(a) 47, 52 (b) 46, 52 (c) 45, 49 (d) 46, 51

Sol. (d) In this simple addition series, each number is 5 more than the previous number.

Hence,

11 + 5 = 16

16 + 5 = 21

21 + 5 = 26

26 + 5 = 31

31 + 5 = 36

36 + 5 = 41

41 + 5 = 46

46 + 5 = 51

i.e., 46, 51

Therefore, option (d) is the correct answer.

Example 63. The next two terms of the series 3, 8, 13, 18, 23, 28, 33,... are

(a) 39, 44 (b) 28, 44 (c) 38, 43 (d) 37, 42

Sol. (c) In this simple addition series, each number is 5 greater than the previous number. Hence,

3 + 5 = 8

8 + 5 = 13

13 + 5 = 18

18 + 5 = 23

23 + 5 = 28

28 + 5 = 33

33 + 5 = 38

38 + 5 = 43

i.e., 38 ,43

Therefore, option (c) is the correct answer.

Example 64. The next two terms of the series: 84,78,72,66,60,54,48 , ...

(a) 44, 34 (b) 42, 36 (c) 42, 32 (d) 40, 34

Sol. (b) In this simple subtraction series, each number is 6 less than the previous number. Hence,

84 – 6 = 78

78 – 6 = 72

72 – 6 = 66

66 – 6 = 60

60 – 6 = 54

54 – 6 = 48

48 – 6 = 42

42 – 6 = 36

i.e. 42 ,36

Therefore, option (b) is the correct answer.

Example 65. The next two terms of the series: 20, 20, 17, 17, 14, 14, 11,...

(a) 11, 8 (b) 11, 11 (c) 11, 14 (d) 8, 9

Sol. (a) This is a simple subtraction with repetition. It begins with 20, which is repeated, then 3 is subtracted, resulting in 17, which is repeated again then 3 is subtracted to get 11,

which is repeated, further 3 is subtracted to get 8.

Therefore, the next two numbers are 11, 8.

Therefore, option (a) is the correct answer.

Example 66. The next two terms of the series: 61, 57, 50, 61, 43, 36, 61,...

(a) 29, 61 (b) 29, 22 (c) 31, 61 (d) 22, 15

Sol. (b) This is an alternating repetition series, in which a random number, 61, is interpolated as every third number into an otherwise simple subtraction series. Starting with the second number, 57, each number (except 61) is 7 less than the previous number.

Hence,

61

57 – 7 = 50

then 61

50 – 7 = 43

43 – 7 = 36

then 61

36 – 7 = 29

29 – 7 = 22

i.e., 29 ,22

Therefore, option (b) is the correct answer.

Example 67. The next two terms of the series: 4, 8, 22, 12, 16, 22, 20, 24 ...

(a) 28, 32 (b) 28, 22 (c) 22, 28 (d) 32, 36

Sol. (c) This is an alternating repetition series, with a random number, 22, interpolated as every third number into an otherwise simple addition series. In the addition series, 4 is added to each number to arrive at the next number.

Hence,

4 + 4 = 8

then 22

8 + 4 = 12

12 + 4 = 16

then 22

16 + 4 = 20

20 + 4 = 24

then 22

24 + 4 = 28

i.e. 22 ,28

Therefore, option (c) is the correct answer.

Example 68. The next two terms of the series: 40, 40, 31, 31, 22, 22, 13 ...

(a) 13, 4 (b) 13, 5 (c) 4, 13 (d) 9, 4

Sol. (a) This is a subtraction series with repetition. Each number repeats itself and then decreases by 9.

Hence,

40

40 – 9 = 31

31

31 – 9 = 22

22

22 – 9 = 13

13

13 – 9 = 4

i.e.13 ,4

Therefore, option (a) is the correct answer.

Example 69. The next two terms of the series: 1, 10, 7, 20, 13, 30, 19, ...

(a) 26, 40 (b) 29, 36 (c) 40, 25 (d) 25, 31

Sol. (c) Here, we have two series patterns. In the first series, 6 is added to each number to arrive at the next. In the second series, 10 is added to each number to arrive at the next.

Hence,

1st series

1 + 6 = 7

7 + 6 = 13

13 + 6 = 19

19 + 6 = 25

2nd series:-

10 + 10 = 20

20 + 10 = 30

30 + 10 = 40

i.e., 40 ,25

Therefore, option (c) is the correct answer.

Example 70. The next two terms of the series: 10, 20, 25, 35, 40, 50, 55, ...

(a) 70, 65 (b) 60, 70 (c) 60, 75 (d) 65, 70

Sol. (d) This is an alternating addition series, in which 10 is added, then 5, then 10, and so on.

Hence,

10 + 10 = 20

20 + 5 = 25

25 + 10 = 35

35 + 5 = 40

40 + 10 = 50
50 + 5 = 55
55 + 10 = 65
65 + 5 = 70
i.e.65 ,70
Therefore, option (d) is the correct answer.

FULL CHAPTER PRACTICE QUESTIONS (PART F)

1. What will be the next term of the series: 7, 23, 47, 119, 167,?
   (a) 211 (b) 223 (c) 287 (d) 319
2. Which of the following is the odd one out of the following series?
   4, 12, 44, 176, 890
   (a) 4 (b) 12 (c) 890 (d) 176
3. Which of the following is the odd one out of the following series?
   835, 735, 642, 751, 853, 981
   (a) 835 (b) 751 (c) 981 (d) 642
4. 22, 33, 66, 77, 121, 279, 594
   (a) 33 (b) 77 (c) 279 (d) 594
5. Find the odd man out of the following: 8, 13, 21, 32, 47, 63, 83
   (a) 13 (b) 47 (c) 13 (d) 83
6. Find the odd man out of the following: 1, 2, 6, 15, 31, 56, 91
   (a) 2 (b) 56 (c) 91 (d) 6
7. Find the odd man out of the following: 2, 3 , $\frac{4}{3}$, $\frac{1}{2}$, $\sqrt{3}$
   (a) $\sqrt{3}$ (b) 3 (c) $\frac{4}{3}$ (d) $\frac{1}{2}$
8. Find the missing number in the following series: 10, 18, 28, 40, 54, ?, 88
   (a) 70 (b) 86 (c) 87 (d) 98
9. If MEKLF is coded as 91782 and LLLJK as 88867, how can IHJED be coded as?
   (a) 97854 (b) 64512 (c) 54310 (d) 75632
10. Find the missing number in the following series 7, 26, 63, 214, 215, ?, 511
    (a) 342 (b) 343 (c) 441 (d) 421
11. SCD, TEF, UGH _____WKL.
    (a) CNM (b) VJI (c) VIJ (d) IJT
12. If GOLD is written as IQNF, how WIND can be written as code?
    (a) YKPF (b) VHCM (c) XJOE (d) DNIW

13. If in a certain code language NAME is written as 4258, then what is coded as MEAN?

(a) 2458 (b) 5842 (c) 8524 (d) 5824

14. In certain code, TRIPPLE is written as SQHOOKD, how is DISPOSE written in that code?

(a) CHRONYD (b) CHRONRD (c) CHORNRD (d) DHRONRD

15. In a system 15789 is coded as EGKPT and 2346 is coded as ALUR, how can 23549 be coded?

(a) ALGUT (b) AGLUT (c) LAGUT (d) None

16. If PALAM could be given the code number 43, what code number can be given to SANTACRUZ? **(ICAI)**

(a) 123 (b) 85 (c) 120 (d) 125

17. In a certain code '256' means 'you are good', '637' means 'we are bad' and '358' means 'good and bad'. Which of the following represents 'and' in that code? **(ICAI)**

(a) 5 (b) 5 (c) 8 (d) 3

18. Find the odd one out of the following: 1, 8, 27, 625, 124

(a) 124 (b) 625 (c) 8 (d) 1

19. Find out the next number in the following series: 7, 11, 13, 17, 19, 23, 25, 29?

(a) 30 (b) 31 (c) 32 (d) 33

20. Find odd man out of the following series 15, 21, 63, 81,69

(a) 15 (b) 21 (c) 63 (d) 81

21. March, May, September, December

(a) March (b) September (c) December (d) May

22. Look at the series: 14, 28, 20, 40, 32, 64, ... What number should come next?

(a) 52 (b) 56 (c) 96 (d)128

23. If PALE is coded as 2134 and EARTH is coded as 41590, how is PEARL coded?

(a) 29530 (b) 24153 (c) 25430 (d) 254313

24. Find the missing number in the following series 2, 3, 3, 5, 10, 13, 39, ?, 172, 177

(a) 42 (b) 44 (c) 43 (d) 40

25. If in a certain code language NAME is written as 4258 then what is coded as MEAN?

(a) 2458 (b) 5842 (c) 8524 (d) 5824

26. Find the missing number in the following series 6, 11, 21, 36, 56, ?

(a) 42 (b) 51 (c) 81 (d) 91

27. If A = 1, FAT = 27, FAITH = ?

(a) 44 (b) 45 (c) 46 (d) 36

28. In a certain language, MADRAS is coded NBESBT, how DELHI is coded in that code?

(a) EMMJI (b) EFMIJ (c) EMFIJ (d) JIFEM **(Dec 2019)**

29. Find the missing number in the following series 6, 17, 39, ?, 116

(a) 72 (b) 75 (c) 85 (d) 80

30. Find the odd man out: 835, 734, 642, 751, 853, 981, 532

(a) 751 (b) 853 (c) 981 (d) 532

31. Find the next number in the given sequence?

11, 17, 39, 85, ?, 281, 447 **(Dec 2022)**

(a) 133 (b) 143 (c) 153 (d) 163

32. Find the missing number in the following series?

3, 5, 5, 19, 7, 41, 9 , ?, 11, 109 **(Dec 2022)**

(a) 71 (b) 61 (c) 69 (d) 70

33. Find the odd man out:

34, 105, 424, 2123, 12756 **(Dec 2022)**

(a) 12756 (b) 2123 (c) 424 (d) 34

34. In certain code language, if TOUR is written as 1234, CLEAR is written 5678 and SPARE is written as 90847, Find the code for CARE? **(Dec 2022)**

(a) 1247 (b) 4847 (c) 5247 (d) 5847

35. If 'FROZEN' is decoded as 'OFAPSG'. Tick the right option that depicts 'MOLTEN' written in this way? **(Dec 2022)**

(a) OFPOMN (b) OFSMPN (c) OFUMPN (d) OFUNPN

Answer Key

1. (c)	**2.** (c)	**3.** (b)	**4.** (c)	**5.** (b)	**6.** (d)	**7.** (a)	**8.** (a)	**9.** (c)	**10.** (a)
11. (b)	**12.** (a)	**13.** (d)	**14.** (b)	**15.** (a)	**16.** (a)	**17.** (c)	**18.** (a)	**19.** (b)	**20.** (d)
21. (b)	**22.** (b)	**23.** (b)	**24.** (c)	**25.** (d)	**26.** (c)	**27.** (a)	**28.** (b)	**29.** (a)	**30.** (a)
31. (d)	**32.** (a)	**33.** (b)	**34.** (d)	**35.** (c)					

SUMMARY

- Number series: Number series is a series of numbers following a particular pattern, and we need to find missing terms while few terms are given.
- Coding and decoding: There are two kinds of coding Letter coding and number coding.
- Letter coding: In this type the real alphabets in a word are replaced by certain other alphabets according to a specific rule to form its code.
- Number coding: Here either letters are given a particular number code, or number is given a particular letter code.
- Odd-man out: When there are few words, numbers or letters are given to you, such that all have a relation except one and you need to find that particular word.

❑❑❑