

An Advanced
Approach To

REASONING

VERBAL & NON-VERBAL

for Competitive Examinations

IBPS, SSC, SBI, RBI, AFCAT,
CDS, UPSC, UPPSC, CAT, MAT,
XAT, Railways, Insurance and
other competitive examinations

KEY FEATURES

- ✔ A complete guide cum practice book for verbal & non-verbal reasoning
- ✔ Based on a modern approach to understand the concepts perfectly
- ✔ Includes previous years' questions for students to assess the difficulty level of exams
- ✔ Exhaustive variety of exercises for practice, along with the answer key and explanations
- ✔ Over 5000+ practice questions with hints & explanations



High-Score Series⁺

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Preface

Verbal & Non-verbal reasoning is an essential section of today's competitive exams. Thus, it becomes imperative for all aspirants to have a steady command over the subject to qualify the exams. Oswal's Reasoning Verbal & Non-verbal is a guidebook that has been prepared keeping in mind the topics and the types of questions asked in the competitive exams nowadays. It follows the 'Learn from Basics' concept which focuses on strengthening the subjective foundation of the learners. Practice questions are segregated on the basis of their difficulty level to increase their speed and accuracy.

The solutions to the questions are provided in a detailed manner to ensure clear understanding in one go. Previous year questions of various competitive exams are also added to help the students gauge the pattern and difficulty level of the exams of current times.

All efforts have been made to make this book error-free and easy to understand. All previous year questions are gathered from genuine sources. Nonetheless, all the readers are welcome to communicate their complaints, queries and suggestions to the publisher. Attempts will be made to inculcate them in the further editions.

Publisher

HOW TO MANAGE YOUR TIME BETTER

This is the time when you are going to be promoted to higher classes. Going a level up also means there will be more books, more syllabus, more tests & exams. We have pieced together some of the most effective tips that will surely help you stay ahead of your peers by staying organised and managing your time as well as energy in an improved manner.

- **Make a list:** Every morning, jot down all the things you have to do for the day. Arrange all your tasks according to their importance and urgency. Then, before going to bed, strike off the tasks you managed to finish, giving yourself a sense of accomplishment and helping you stay on track.

- **Segregate your time:** You should divide your day into hourly-chunks, based on your routine. For example, separate about 6-7 compulsory hours for school; then, 7-8 hours for sleep, 4-5 hours for self-study, 1 hour each for leisure and meals. You can keep the remaining hours free as they get used up in chores and other mundane tasks.



- **Improve your focus:** You must strive to finish your tasks in a decided time limit. Learn to eliminate distractions. You should give your undivided attention to their completion. This will improve your efficiency and help you finish your work on time.

- **Take little breaks:** In your study schedule, make sure to assign small breaks between long study sessions to give your brain some rest and restore your energy for another round of rigorous learning. You can have a snack or simply close your eyes and quietly meditate.



- **End procrastination:** Procrastination is the biggest hurdle in your path to success. If you have a daunting task at hand, it's better to break it into smaller chunks and work on them than just postponing it for later. Slow and steady wins the race, after all!

Follow these tips and watch your productivity increase with time. Share your experience with us at contact@oswalpublishers.com.

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STUDY LOG

TOPICS I'VE MASTERED

TOPICS I'VE TO WORK ON

PRACTICE STRATEGY

TIPS

1. Divide lengthy topics into smaller chunks and work on understanding one sub-topic at a time.
2. At the end of each study session, make short notes for quick revision.
3. Revisit previously learnt topics regularly from self-made notes.
4. Try to understand the topic than just mugging it up. It will stay in your memory for longer.

VERBAL

SERIES COMPLETION

The terms of the series are subdivided into the following types

1. Series based on Alphabets
2. Series based on Numbers
3. Series based on both Alphabets and Numerals
4. Series based on Patterns

These terms follow a certain pattern throughout the series. One should study the given series, analyse and identify the pattern and they are required to complete the given series with its most suitable alternative or else find the wrong term among the given series.

SERIES BASED ON ALPHABETS

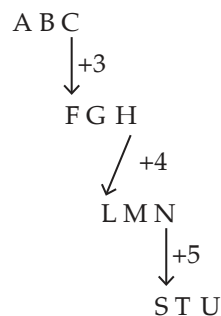
In this type, a series of single, pairs or groups of letters or combination of letters and numerals is given. The terms form a certain pattern in the series with respect to the position of the letters in the English alphabet. We need to identify and evaluate the pattern and accordingly find the missing term or the wrong term in the given series.

Examples

Ex. 1 ABC FGH LMN - - -

- (a) IJK (b) OPQ
(c) STU (d) RST

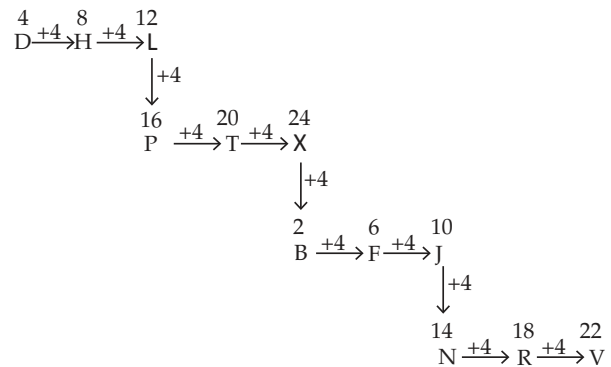
Solution: (c)



Ex. 2 DHL, PTX, BFJ, ?

- (a) NRV (b) RVZ
(c) CGK (d) KOS

Solution: (a)

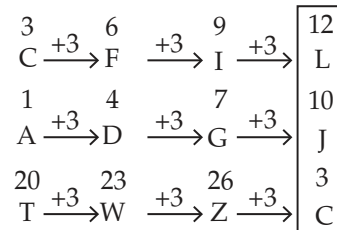


Therefore, ? = NRV

Ex. 3 CAT, FDW, IGZ, ?

- (a) KTC (b) KJA
(c) LHD (d) LJC

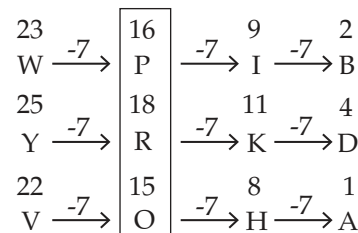
Solution: (d)



Ex. 4 WYV, ?, IKH, BDA

- (a) OPR (b) ROP
(c) PRO (d) OQN

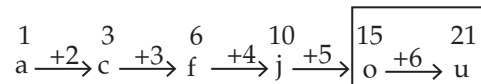
Solution: (c)



Ex. 5 a, c, f, j, ?, ?

- (a) ou (b) mo
(c) lp (d) rv

Solution: (a)



SERIES BASED ON NUMBERS

This series is subdivided into the following two types. They are

Case 1:

Completing the given series by finding the missing term(s).

Case 2:

Finding the wrong term in the given series.

Let's look into each of them in detail.

Sometimes, the differences between the consecutive terms of a series, again form a series. The difference between the consecutive terms of the new series so formed, again form a series. The series continues until we attain a uniform difference between the consecutive terms of the series. These kind of series is called **Triangular Pattern Series**.

Some series should come based on progressions. Some of the ideas of progression are given below.

	Arithmetic Progression (A.P)	Geometric Progression (G.P)
Series	$a, a + d, a + 2d, a + 3d, \dots$	a, ar, ar^2, ar^3, \dots
First Term	a	a
Common difference	d	r
n^{th} term	n^{th} term = $a + (n - 1)d$	n^{th} term = ar^{n-1}

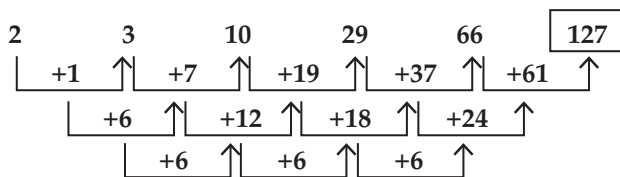
Case 1: Completing the given series by finding the missing term(s)

Examples :

Ex. 1 2, 3, 10, 29, 66, ?

- (a) 89 (b) 99
(c) 127 (d) 130

Solution: (c)



Ex. 2 : $\frac{2}{3}, \frac{4}{7}, \dots, \frac{11}{21}, \frac{16}{31}$

- (a) 6/11 (b) 5/9
(c) 9/17 (d) 7/13

Solution: (d)

Add 2, 3, 4, 5.... respectively to numerators and add 4, 6, 8, 10.... respectively to the denominators. Thus,

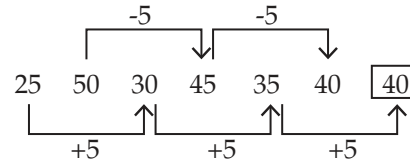
$$\frac{2+2}{3+4} = \frac{4}{7}, \text{ again, } \frac{4+3}{7+6} = \frac{7}{13}$$

Ex. 3 25, 50, 30, 45, 35, 40, ?

- (a) 30 (b) 35
(c) 40 (d) 45

Solution: (c)

The given number series is based on the following pattern:



Ex. 4 Which fraction comes next in the sequence

$$\frac{1}{2}, \frac{3}{4}, \frac{5}{8}, \frac{7}{16}, ?$$

- (a) 9/32 (b) 10/17
(c) 11/34 (d) 12/35

Solution: (a)

The numerators of the fractions in the given sequence form the series 1,3,5,7,... in which each term is obtained by adding 2 to the previous term.

The denominators of the fractions form the series 2, 4, 8, 16 i.e., $2^1, 2^2, 2^3, 2^4$

So, the numerator of the next fraction will be $(7 + 2) = 9$ and the denominator will be 2^5 i.e., 32

Thus, the next term is $\frac{9}{32}$.

Ex. 5 10000, 11000, 9900, 10890, 9801, ?

- (a) 10241 (b) 10423
(c) 10781 (d) 10929

Solution: (c)

This series follows the pattern that it add and subtract 10% of a term alternatively to obtain the next term of the series.

Thus,

$$10000 + (10\% \text{ of } 10000) = 11000$$

$$11000 - (10\% \text{ of } 11000) = 9900$$

$$9900 + (10\% \text{ of } 9900) = 10890$$

$$10890 - (10\% \text{ of } 10890) = 9801$$

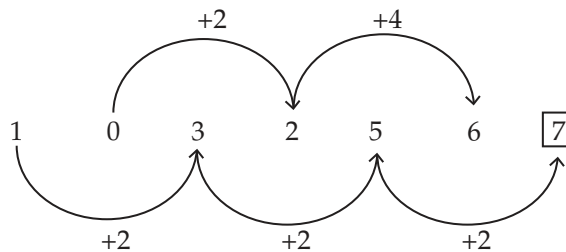
$$\text{Hence, the missing term} = 9801 + 10\% \text{ of } 9801 = 10781$$

Hence, the missing term is 10781.

Ex. 6 1, 0, 3, 2, 5, 6, ?

- (a) 9 (b) 8
(c) 10 (d) 7

Solution: (d)



Ex. 7 1438, 1429, 1417, 1402, ?

- (a) 1378 (b) 1384
(c) 1387 (d) 1392

Solution: (b)

The given number series is based on the following pattern:

$$1438 - (3 \times 3) = 1429$$

$$1429 - (3 \times 4) = 1417$$

$$1417 - (3 \times 5) = 1402$$

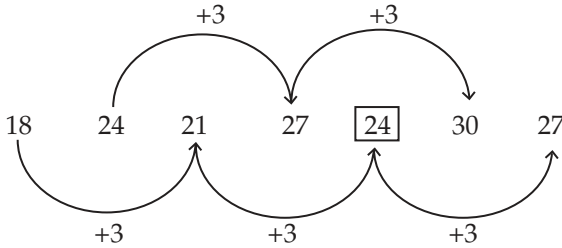
$$1402 - (3 \times 6) = 1384$$

Thus, the term is 1384.

Ex. 8 18, 24, 21, 27, ?, 30, 27

- (a) 33 (b) 30
(c) 24 (d) 21

Solution: (c)



Ex. 9 3, 12, 27, 48, 75, 108, ?

- (a) 147 (b) 162
(c) 183 (d) 192

Solution: (a)

The pattern of the given series is

$$3 \times 1^2, 3 \times 2^2, 3 \times 3^2, 3 \times 4^2, 3 \times 5^2, 3 \times 6^2, \dots$$

Hence, the missing term = $3 \times 7^2 = 3 \times 49 = 147$.

Ex. 10 563, 647, 479, 815, ?

- (a) 672 (b) 386
(c) 279 (d) 143

Solution: (d)

The pattern of the given series is + 84, -168, + 336,....
i.e., + 84, - (84 × 2), + (84 × 2²),...

$$\begin{aligned} \text{Hence, the missing term} &= 815 - (84 \times 2^3) \\ &= 815 - 672 = 143. \end{aligned}$$

Ex. 11 3, 20, 63, 144, 275, ?

- (a) 354 (b) 468
(c) 548 (d) 554

Solution: (b)

The given series is as follows:

Series I: 3 20 63 144 275 ?

Series II: 17 43 81 131 ?

Series III: 26 38 50 ?

Series IV: 12 12

Pattern in Series III: + 12

So,

$$\text{Missing term in Series III} = 50 + 12 = 62$$

$$\text{Missing term in Series II} = 131 + 62 = 193$$

$$\text{Missing term in Series I} = 275 + 193 = 468$$

Hence, the missing term is 468.

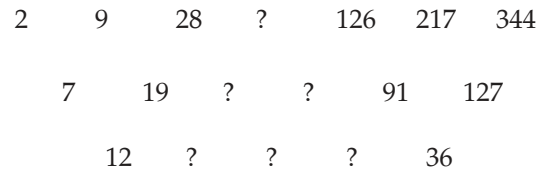
Ex. 12 2, 9, 28, ?, 126, 217, 344

- (a) 50 (b) 65
(c) 70 (d) 82

Solution: (b)

The series given above is a triangular pattern series.

So, we have



Clearly, to form a pattern, the missing terms in Series III will be 18, 24, 30

$$\begin{aligned} \text{Hence, the missing term in the given series} &= 28 + (19 + 18) \\ &= 28 + 37 = 65 \end{aligned}$$

Ex. 13 Which term of the series 5, 8, 11, 14, is 320 ?

- (a) 104th (b) 105th
(c) 106th (d) 64th

Solution: (c)

Clearly, $5 + 3 = 8, 8 + 3 = 11, 11 + 3 = 14, \dots$

So, the series is an AP in which $a = 5$ and $d = 3$

Let 320 be the n^{th} term of the series.

$$\text{Then, } 320 = 5 + (n - 1) \times 3$$

$$(n - 1) = \frac{315}{3} = 105$$

$$n = 106$$

Hence, 320 is the 106th term of the given series.

Ex. 14 In the series 7, 14, 28,, what will be the 10th term?

- (a) 1792 (b) 2456
(c) 3584 (d) 4096

Solution: (c)

Here, $7 \times 2 = 14, 14 \times 2 = 28, \dots$ and so on.

So, the given series are in GP in which $a = 7$ and $r = 2$

$$\therefore \text{10th term} = ar^{(n-1)} = ar^{(10-1)}$$

$$= ar^9 = 7 \times 2^9 = 7 \times 512 = 3584$$

Ex. 15 8, 9, 8, 7, 10, 9, 6, 11, 10, ?, 12

- (a) 5 (b) 7
(c) 8 (d) 11

Solution: (a)

The given series is a combination of the following three series.

Series I: 1st, 4th, 7th, 10th terms i.e., 8, 7, 6, ?

Series II: 2nd, 5th, 8th, 11th terms i.e., 9, 10, 11, 12

Series III: 3rd, 6th, 9th terms i.e., 8, 9, 10

The pattern in Series I is (-1). Hence, the missing term = $6 - 1 = 5$

Case 2: Finding the wrong term in the given series.

Let's go through some examples to understand this better.

Ex. 1 Find out the number that does not belong to the group for lack of common property. (169, 289, 361, 442, 484, 729)

- (a) 484 (b) 442
(c) 361 (d) 289

Solution: (b)

Except the number 442, all other numbers are perfect squares.

$$169 = 13 \times 13; 289 = 17 \times 17; 361 = 19 \times 19;$$

$$442 = 21.023 \times 21.023$$

$$484 = 22 \times 22; 729 = 27 \times 27$$

Ex. 2 (16, 17, 27, 30, 46, 71) Choose the wrong term in the series.

- (a) 27 (b) 46
(c) 16 (d) 71

Solution: (a)

$$16 + 0 = 16$$

$$16 + (1)^2 = 17$$

$$17 + (2)^2 = 21$$

$$21 + (3)^2 = 30$$

$$30 + (4)^2 = 46$$

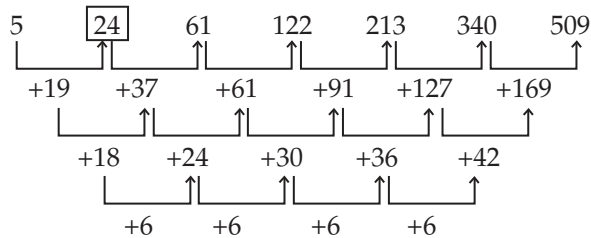
$$46 + (5)^2 = 71$$

Here, 27 is the wrong term.

Ex. 3 Choose the wrong term in : 5, 27, 61, 122, 213, 340, 509.

- (a) 27 (b) 61
(c) 122 (d) 509

Solution: (a)



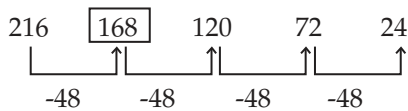
Therefore, the number 27 is wrong in the series.

It should be replaced with 24.

Ex. 4 Choose the wrong term in : 216, 163, 120, 72, 24.

- (a) 216 (b) 163
(c) 72 (d) 24

Solution: (b)



The number 163 is wrong in the series and it should be replaced with 168.

Ex. 5 Choose the wrong term in : 8, 27, 64, 225.

- (a) 27 (b) 8
(c) 225 (d) 64

Solution: (c)

$$2 \xrightarrow{+1} 3 \xrightarrow{+1} 4 \xrightarrow{+1} 5$$

$$8 = (2)^3; 27$$

$$= (3)^3; 64 = (4)^3$$

The next term would be

$$(5)^3 = 125$$

Here, 225 is the wrong term.

SERIES BASED ON BOTH ALPHABETS AND NUMERALS

This type is frequently asked as a jumbled form of questions of Type 1 and Type 2. Here, the terms are a combination of letters and numerals in this type of series, which move according to a certain pattern.

Examples

Ex. 1 Find the term which does not fit into the series given below:

G4T, J10R, M20P, P43N, S90L

- (a) G4T (b) J10R
(c) M20P (d) P43N

Solution:

The patterns followed by the letters are:

$$1^{\text{st}} \text{ Letter } G \xrightarrow{+3} J \xrightarrow{+3} M \xrightarrow{+3} P \xrightarrow{+3} S$$

$$2^{\text{nd}} \text{ Letter } T \xrightarrow{-2} R \xrightarrow{-2} P \xrightarrow{-2} N \xrightarrow{-2} L$$

The number series 4, 10, 20, 43, 90 should follow the pattern $\times 2 + 1, \times 2 + 2, \times 2 + 3, \times 2 + 4$

So, 10 is wrong and must be replaced by $(4 \times 2) + 1$ i.e., 9

Thus, the term J10R does not fit in the given series.

The correct term is J9R. Ans: (b)

Ex. 2 Find the next term in the following series: Z1A, X2D, V6G, T21J, R88M, P445P, ?

- (a) N2676S (b) N2676T
(c) T2670N (d) T2676N

Solution:

The patterns followed by the letters are as follows:

$$1^{\text{st}} \text{ Letter: } Z \xrightarrow{-2} X \xrightarrow{-2} V \xrightarrow{-2} T \xrightarrow{-2} R \xrightarrow{-2} P \xrightarrow{-2} N$$

$$2^{\text{nd}} \text{ Letter: } A \xrightarrow{+3} D \xrightarrow{+3} G \xrightarrow{+3} J \xrightarrow{+3} M \xrightarrow{+3} P \xrightarrow{+3} S$$

The series formed by the numerals i.e., 1, 2, 6, 21, 88, 445, ... follows the pattern $\times 1 + 1, \times 2 + 2, \times 3 + 3, \times 4 + 4, \times 5 + 5, \dots$

So, numeral in the desired term = $445 \times 6 + 6 = 2676$

Hence, the desired term is N2676S. Ans: (a)

Ex. 3 Find the next term in the following series: KA5, ID8, GG11, EJ14, ?

- (a) BX17 (b) BY17
(c) CM17 (d) CM18

Solution:

$$\begin{aligned} \text{1st Letter} & : K \xrightarrow{-2} I \xrightarrow{-2} G \xrightarrow{-2} E \xrightarrow{-2} C \\ \text{2nd Letter} & : A \xrightarrow{+3} D \xrightarrow{+3} G \xrightarrow{+3} J \xrightarrow{+3} M \\ \text{3rd Number} & : 5 \xrightarrow{+3} 8 \xrightarrow{+3} 11 \xrightarrow{+3} 14 \xrightarrow{+3} 17 \end{aligned}$$

Thus, the next term in the series is CM17. Ans: (c)

Ex. 4 Find the next term in the following series:
2, A, 10, B, 7, C, 15, D, ?

- (a) 9 (b) 10
(c) 12 (d) 19

Solution:

The given series is the combination of the two series:

First series: 2, 10, 7, 15, ?

Second series: A, B, C, D

The pattern in the first series is

$$2 \xrightarrow{+8} 10 \xrightarrow{-3} 7 \xrightarrow{+8} 15 \xrightarrow{-3} 12$$

Hence, the missing term in the series is 12. Ans: (c)

SERIES BASED ON PATTERNS

This type consists of a series of small letters which follows a certain pattern. However, some letters seem to be missing in this type of series. These missing letters or terms are given as a proper sequence as one of the alternatives.

Correspondence Series consists of three sequences with three different elements (usually capital letters, digits and small letters). On the basis of their similarity in the positions in the three sequences, a capital letter is found to correspond with a unique digit and a unique small letter, whenever it occurs. We need to find out the correspondence so that we can accordingly choose the elements to be filled in that place.

Ex. 1 X W C _ T S 20 _ P 12 _ L 15 K _ P _
G S 7

- (a) 17, F, I, S, T (b) 19, E, L, R, H
(c) 21, G, L, N, F (d) 23, H, K, O, H

Solution:

$$X W C _ / T S 20 _ / P 12 _ L / 15 K _ P / _ G S 7$$

Observing the above series, we find that each group consists of two consecutive letters and the number represents the position of one of these letters in the English alphabet.

So, 1st missing term must be the number of corresponding W or X i.e. 23 or 24.

Also, in the group --- G S 7, 7 corresponds to G. So, 5th missing term must be F or H. Clearly, (d) fulfils both the above. Hence, the answer is D.

Ex. 2 Z _ 25 Y B 23 X C _ W _ 19 _ E 17

- (a) A, 21, D, V (b) A, 27, C, V
(c) X, 21, C, W (d) X, 27, F, W

Solution:

$$Z _ 25 / Y B 23 / X C _ / W _ 19 / _ E 17$$

Observing the group Y B 23, we find that in a group, the number is the difference of the numbers representing the positions of the two letters in the English alphabet.

Thus, putting A = 1, B = 2, ..., Y = 25, Z = 26, we have:

$$Y - B = 25 - 2 = 23.$$

Similarly, missing term is 3rd group = X - C = 24 - 3 = 21;

Missing term in 1st group = Z - 25 = 26 - 25 = 1 = A.

So, the first and second missing terms are A and 21 respectively, which are given only in (a). Hence, the answer is A.

Ex. 3 _ ab _ b _ aba _ _ abab

- (a) a bb aa (b) bb aa b
(c) ab aa b (d) a aa ba

Solution: (d)

$$\boxed{a} a b \boxed{a} b / \boxed{a} a b a \boxed{b} / \boxed{a} a b a b$$

Thus the missing terms are aaaba.

Ex. 4 _ cb _ cab _ baca _ cba _ ab

- (a) cabcb (b) abccb
(c) bacbc (d) bcaba

Solution: (c)

$$\boxed{b} c b / \boxed{a} c a / b \boxed{c} b / a c a / \boxed{b} c b / a \boxed{c} a / b$$

Thus, the missing terms are bacbc

Ex. 5 an _ nn _ ana _ na _ nan _ a

- (a) annan (b) aanan
(c) nanna (d) naana

Solution: (b)

$$an \boxed{a} / nn \boxed{a} / ana / \boxed{n} na / \boxed{a} na / n \boxed{n} a$$

Thus the missing terms are aanan

PREVIOUS YEAR QUESTIONS

1. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

F, M, T, ?, H, O [SSC JUNIOR ENGINEER EXAM-2018]

- (a) B (b) C
(c) A (d) D

2. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

ROK, LIE, FCY, ZWS, ?

- (a) LAQ (b) SRV
(c) TQM (d) FMQ

3. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.

FAQ, LGW, RMC, ?, DY0

[SSC JUNIOR ENGINEER EXAM-2018]

- (a) VIR (b) XSI
(c) LSI (d) MIS

4. In the following question, select the missing number from the given alternatives.

42, 21, 21, 31.5, 63, ?

[SSC JUNIOR ENGINEER EXAM-2018]

- (a) 169.75 (b) 157.5
(c) 152.5 (d) 126.75

5. In the following question, select the missing number from the given alternatives.

14, 44, 135, 409, 1232, ?

[SSC JUNIOR ENGINEER EXAM-2018]

- (a) 2962 (b) 3340
(c) 3702 (d) 3406

6. Which of the following terms follows the trend of the given list?

OOXXXXX, OXOXXXX, OXXOXXX, OXXXOXX, OXXXXOX, _____.

[SSC JUNIOR ENGINEER EXAM-2018]

- (a) XOXXXXO (b) XOXXXXO
(c) OXXXXOX (d) OXXXXOX

7. A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.

HK,?, PQ, TT, XW

[SSC CHSL (10 + 2) TIER-I (CBE) EXAM 2017]

- (a) LN (b) NO
(c) LK (d) NM

8. A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.

JN, OR, UW, BC,?

[SSC CHSL (10 + 2) TIER-I (CBE) EXAM 2017]

- (a) KM (b) JJ
(c) JK (d) KJ

9. A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.

EFGHI, LMNO, RST, WX,?

[SSC CHSL (10 + 2) TIER-I (CBE) EXAM 2017]

- (a) A (b) D
(c) B (d) E

10. A series is given with one term missing. Out of the four alternatives, choose the alternative that will complete the series.

BDF, CFI, DHL,?

[SSC MULTI-TASKING STAFF EXAM 2017]

- (a) EIM (b) EJO
(c) EMI (d) CJM

11. In the following question, which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

JK_MJ_LM_KL_

[SSC CHSL (10 + 2) TIER-I (CBE) EXAM 2017]

- (a) JKLL (b) LKKM
(c) LKJM (d) KJLM

12. Which set of letters when sequentially placed at the gaps in the given letter series shall complete it?

CD_E_DD_CD_E

[SSC CHSL (10 + 2) TIER-I (CBE) EXAM 2017]

- (a) CDCD (b) DCCC
(c) DCED (d) DDDC

Directions (Qs. 13-14): A series is given, with one term missing. Choose amongst the given responses choose the meaningful one.

13. CUS, DVT, EWU, _____

- (a) FXV (b) VXF
(c) XFV (d) XVF

14. 206, 221, 251, 296,?, 431

- (a) 326 (b) 356
(c) 311 (d) 341

15. A series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series:

ALZ, CJV, EHR, GFN,?

[SSC CGL 2016]

- (a) JDJ (b) IEK
(c) IDJ (d) JEK

16. A series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series:

8, 24, 12,?, 18, 54

[SSC CGL 2016]

- (a) 48 (b) 36
(c) 29 (d) 21

17. A series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series. CAT, DBT, ECT,?

[SSC CGL 2016]

- (a) DCT (b) FDT
(c) FCT (d) FAT

18. A series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series. 5, 11, 24, 51, 106, _____?

[SSC CGL 2016]

- (a) 122 (b) 217
(c) 120 (d) 153

Directions (Qs. 19-20): In the following questions, which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

[SSC STENOGRAPHER 2016]

19. bb_aab_caab_ca_

- (a) cbba (b) acab
(c) abbc (d) bcab

20. _cdb_ddb_db_c_d

- (a) bbcbb (b) ccbbc
(c) bbbcc (d) ccbbc

Directions (Qs. 21-24): In the Four questions, a series is given with one (or more) term missing. Choose the correct alternative from the given ones that will complete the series: [SSC STENOGRAPHER 2016]

21. 720, 180, 176, 44, 40, 10,?

- (a) 6, 4 (b) 8, 6
(c) 6, 2 (d) 4, 2

22. 5, 10, 20, 40, 80,?

- (a) 150 (b) 160
(c) 120 (d) 140

23. C4X, F9U, I16R,?

- (a) L27P (b) K25P
(c) L25O (d) L25U

24. 1, 5, 21, 57, ?, 221

- (a) 121 (b) 126
(c) 96 (d) 108

25. Which one set of letters when sequentially placed at the gaps in the letter series shall complete it?

_qp_x_rq_xxr_pxx_qp_x [SSC SUB. INS. 2016]

- (a) rxpqr (b) pxrqr
(c) xrprqx (d) rsprqx

Directions (Qs. 26-27): In the Two questions, a series is given, with one term missing. Choose the correct alternative from the given options that will complete the series. [SSC SUB. INS. 2016]

26. 3, 17, 45, 87,?

- (a) 143 (b) 153
(c) 183 (d) 123

27. AZWD, CXUF,?, GTQJ

- (a) EVSH (b) EUTH
(c) EUSH (d) EVPI

Directions (Qs. 28-29): In questions below, which one set of letters when sequentially placed at the gaps in the given letter series shall complete it? [SSC SUB. INS. 2015]

28. LU_TUPLUBTU_LUBT_P_UBTUP

- (a) LBPU (b) BPUL
(c) PBUL (d) BUPL

29. B_CCABB_CABBC_AB_CCA

- (a) BCBC (b) BCCB
(c) BBCC (d) BBBC

Directions (Qs. 30-31): In questions below, a series is given, with one/two term/s missing. Choose the correct alternative from the given ones that will complete the series. [SSC SUB. INS. 2015]

30. 24, 35, 20, 31, 16, 27, __, __

- (a) 9, 9 (b) 5, 30
(c) 8, 25 (d) 12, 23

31. $7\frac{1}{7}$, $8\frac{2}{6}$, $9\frac{5}{5}$, $12\frac{2}{4}$, $16\frac{2}{3}$, ?

- (a) 35 (b) 50/2
(c) $15\frac{2}{4}$ (d) $16\frac{4}{4}$

Directions (Qs. 32-35): In questions, a series is given, with one term missing. Choose the correct alternative from the

given ones that will complete the series. [SSC CHSL 2015]

32. Y, T, P, ?, K

- (a) L (b) O
(c) N (d) M

33. 4, 11, 17, 22, ?, 29, 31, 32

- (a) 26 (b) 27
(c) 23 (d) 24

34. $6 + \sqrt{216}$; $7 + \sqrt{343}$; $8 + \sqrt{512}$; $9 + \sqrt{729}$; ?

- (a) $10 + \sqrt{10000}$ (b) $10 + \sqrt{10^5}$
(c) $10 + \sqrt{100}$ (d) $10 + \sqrt{1000}$

35. AZ, CX, FU, ?__

- (a) JQ (b) KP
(c) IR (d) IV

36. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

_bbm_amb_m_a_bbm [SSC CHSL 2015]

- (a) ambbm (b) mabam
(c) abmab (d) mbabm

Directions (Qs. 37-40): A series is given, with one/two term missing. Choose the correct alternatives from the given ones that will complete the series. [SSC CHSL 2015]

37. 6, 2, 9, 4, 12, -, -

- (a) 6, 15 (b) 4, 13
(c) 8, 24 (d) 13, 15

38. A D H M S?

- (a) T (b) W
(c) X (d) Z

39. -1, 0, 3, 8, 15,?

- (a) 23 (b) 26
(c) 24 (d) 25

40. ACEZXVGIKTRP?

- (a) M (b) N
(c) O (d) L

41. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

ab_cba_bcc_aabccb__bccba [SSC CHSL 2015]

- (a) abbac (b) cccab
(c) cabaa (d) abcab

42. Find the wrong number in the given series? 15, 28, 30, 39, 48 [SSC CHSL 2015]

- (a) 28 (b) 15
(c) 30 (d) 39

Directions (Qs. 43-44): In the following Questions, which one set of letters when sequentially placed at the gaps in the given letter series shall complete it? [SSC CGL 1ST SIT. 2015]

43. ccbab _ caa _ bccc _ a _

- (a) babb (b) bbba
(c) baab (d) babc

44. a _ _ dba _ bcad _ _ da _ _ cd

- (a) bccdbcab (b) abcdcdca
(c) bccddcba (d) aabccdd

Directions (Qs. 45-46): In the following two Questions, a series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series. [SSC CGL 1ST SIT. 2015]

45. 4, 6, 10, 16, 24, ?
 (a) 28 (b) 30
 (c) 34 (d) 40
46. 3, 5, 9, 17, ?
 (a) 26 (b) 65
 (c) 33 (d) 42
47. Choose the correct alternatives from the given ones which will complete the series.
 B X J, E T L, H P N, K L P, ? [SSC STENOGRAPHER 2015]
 (a) M H Q (b) M I P
 (c) M I P (d) N H R
- Directions (Qs. 48-50):** In questions, which one set of letters/numbers when sequentially placed at the gaps in the given letter series shall complete it? [SSC CGL 2ND SIT. 2015]
48. SH _ ELAS _ EELA _ HEELA SHEE _ A
 (a) HHSS (b) EEHS
 (c) ELHA (d) EHSL
49. 12_ 4 / 1_ 3 4/123 _ / _ 234
 (a) 3212 (b) 2134
 (c) 3241 (d) 1432
50. _ _ aba _ _ ba _ ab
 (a) abbbb (b) baabb
 (c) bbaba (d) abbab
51. Find the missing number 2, 5, 10, 17, 26, ?
 [SSC CGL 2ND SIT. 2015]
 (a) 36 (b) 49
 (c) 37 (d) 47
- Directions (Qs. 52-54):** In questions below, a series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.
 [SSC SUB. INS. 2014]
52. FAG, GAF, HAI, IAH, _____
 (a) JAK (b) HAK
 (c) JAI (d) HAL
53. 3, 6, 9, 15, 24, 39, 63, ?
 (a) 100 (b) 87
 (c) 102 (d) 99
54. -1, 0, ?, 8, 15, 24
 (a) 4 (b) 3
 (c) 2 (d) 1
- Directions (Qs. 55-56):** In question, a series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series. [SSC MULTITASKING 2014]
55. 7, 14, 23, 34, ?
 (a) 46 (b) 47
 (c) 44 (d) 45

56. AE, FJ, KO, ? UY
 (a) QN (b) TQ
 (c) NP (d) PT
- Directions (Qs. 57-63):** In Question, a series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series. [SSC CHSL 2014]
57. 3, 15, 4, 16, 5, 17, 6, ?, 7
 (a) 12 (b) 13
 (c) 15 (d) 18
58. 68, 81, 96, ? 132
 (a) 105 (b) 110
 (c) 113 (d) 130
59. 121, 253, 374, 495, ?
 (a) 565 (b) 523
 (c) 5116 (d) 5102
60. CE, GI, KM, OQ, ?
 (a) TW (b) TV
 (c) SU (d) RT
61. R, O, L, I, F ?
 (a) C (b) A
 (c) E (d) I
62. Find the wrong number in the series: 30, 27, 36, 45, 72
 (a) 30 (b) 27
 (c) 36 (d) 72
63. Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?
 _ cb _ ca _ bacb _ ca _ bac _ d.
 (a) badddb (b) bbbddd
 (c) addddb (d) addbbb
64. 1331, 729, 343, 125, ? [SSC CGL 1ST SIT. 2014]
 (a) 27 (b) 64
 (c) 216 (d) 512
- Directions (Qs. 65-67):** A series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series. [SSC CGL 1ST SIT. 2014]
65. 1, 2, 6, 24, ? , 720
 (a) 3 (b) 5
 (c) 120 (d) 8
66. 156, 506, ? , 1806
 (a) 1056 (b) 856
 (c) 1456 (d) 1506
67. 8, 18, 32, 50, 72, ?
 (a) 76 (b) 98
 (c) 80 (d) 70
68. B D Z X F H V T J ???
 (a) L R P (b) L P R
 (c) L R Q (d) K R P

ANSWER KEY

1. (c)	2. (c)	3. (b)	4. (b)	5. (c)	6. (d)	7. (a)	8. (b)	9. (a)	10. (b)
11. (c)	12. (c)	13. (a)	14. (b)	15. (c)	16. (b)	17. (b)	18. (b)	19. (a)	20. (a)
21. (c)	22. (b)	23. (c)	24. (a)	25. (a)	26. (a)	27. (a)	28. (b)	29. (b)	30. (d)
31. (b)	32. (d)	33. (a)	34. (d)	35. (a)	36. (b)	37. (a)	38. (d)	39. (c)	40. (a)
41. (c)	42. (a)	43. (a)	44. (a)	45. (c)	46. (c)	47. (d)	48. (d)	49. (c)	50. (d)
51. (c)	52. (a)	53. (c)	54. (b)	55. (b)	56. (d)	57. (d)	58. (c)	59. (c)	60. (c)
61. (a)	62. (a)	63. (c)	64. (a)	65. (c)	66. (a)	67. (b)	68. (a)		

EXPLANATIONS

1. The succeeding alphabet is the seventh alphabet (+7) from the previous one.

2. Each letter in the series is decreased by the order of 6 from the preceding letter. Hence, the answer is TQM.

3. This series is decreased by the order of 6 in the alphabetical order. Hence the answer is XSI.

4. $42 \times 0.5 = 21$

$21 \times 1 = 21$

$21 \times 1.5 = 31.5$

$31.5 \times 2 = 63$

$63 \times 2.5 = 157.5$

5. $14 \times 3 + 2 = 44$

$44 \times 3 + 3 = 135$

$135 \times 3 + 4 = 409$

$409 \times 3 + 5 = 1232$

$1232 \times 3 + 6 = 3702$

6. The letter next to the second 'O' has been switching its place to the next place in the succeeding term. Hence, OXXXXXO is the answer.

7. $H \xrightarrow{+4} L \xrightarrow{+4} P \xrightarrow{+4} T \xrightarrow{+4} X$
 $K \xrightarrow{+3} N \xrightarrow{+3} Q \xrightarrow{+3} T \xrightarrow{+3} W$

8. $J \xrightarrow{+5} O \xrightarrow{+6} U \xrightarrow{+7} B \xrightarrow{+8} J$
 $N \xrightarrow{+4} R \xrightarrow{+5} W \xrightarrow{+6} C \xrightarrow{+7} J$

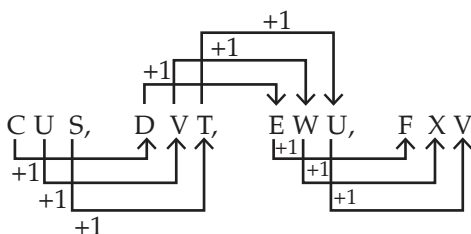
9. $E \xrightarrow{+1} F \xrightarrow{+1} G \xrightarrow{+1} H \xrightarrow{+1} I$
 $I \xrightarrow{+3} L \xrightarrow{+1} M \xrightarrow{+1} N \xrightarrow{+1} O$
 $O \xrightarrow{+3} R \xrightarrow{+1} S \xrightarrow{+1} T$
 $T \xrightarrow{+3} W \xrightarrow{+1} x$
 $x \xrightarrow{+3} A$

10. $B \xrightarrow{+1} C \xrightarrow{+1} D \xrightarrow{+1} E$
 $D \xrightarrow{+2} F \xrightarrow{+2} H \xrightarrow{+2} J$
 $F \xrightarrow{+3} I \xrightarrow{+3} L \xrightarrow{+3} O$

11. JK L M / J K LM / J KL M

12. CD D E / C DD E / CD D E

13.



14. 206 221 251 296 356 431
 $\xrightarrow{+15} \xrightarrow{+30} \xrightarrow{+45} \xrightarrow{+60} \xrightarrow{+75}$

15. $A \xrightarrow{+2} L \xrightarrow{-2} Z \xrightarrow{-4} C \xrightarrow{+2} J \xrightarrow{-2} V \xrightarrow{-4} E \xrightarrow{+2} H \xrightarrow{-2} R \xrightarrow{-4} G \xrightarrow{+2} F \xrightarrow{-2} N \xrightarrow{-4} I \xrightarrow{-2} D \xrightarrow{-4} J$

The first letter is increased by two in the consecutive terms. The second letter is decreased by two in the consecutive terms. Similarly, the last letter is decreased by 4 in the consecutive terms.

16. 8 24 12 36 18 54
 $\xrightarrow{\times 3} \xrightarrow{\div 2} \xrightarrow{\times 3} \xrightarrow{\div 2} \xrightarrow{\times 3}$

17. $C \xrightarrow{+1} A \xrightarrow{+1} T \xrightarrow{+1} D \xrightarrow{+1} B \xrightarrow{+1} T \xrightarrow{+1} E \xrightarrow{+1} C \xrightarrow{+1} T \xrightarrow{+1} F \xrightarrow{+1} D \xrightarrow{+1} T$

18. $5 \times 2 + 1 = 11$
 $11 \times 2 + 2 = 24$
 $24 \times 2 + 3 = 51$
 $51 \times 2 + 4 = 106$
 $106 \times 2 + 5 = 217$

19. $b \underline{b} c a a |$
 $b \underline{b} c a a |$
 $b \underline{b} c a a .$

20. $b c \underline{d} b b d d |$
 $b c \underline{d} b b |$
 $\underline{b} c d .$

21. $\frac{720}{4} = 180$
 $180 - 4 = 176$

$\frac{176}{4} = 44$

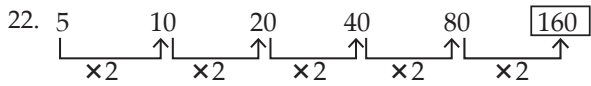
$44 - 4 = 40$

$\frac{40}{4} = 10$

$10 - 4 = 6$

$\frac{6}{4} = 1.5 \oplus 2$

The answer is 6, 2.



23. There are three series:

I Series : $C \xrightarrow{+3} F \xrightarrow{+3} I \xrightarrow{+3} L$

II Series : $4 \xrightarrow{+5} 9 \xrightarrow{+7} 16 \xrightarrow{+9} 25$

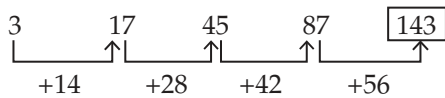
III Series : $X \xrightarrow{-3} U \xrightarrow{-3} R \xrightarrow{-3} O$

24. There is a difference of 4, 16, 36 which are squares of 2, 4, 6 respectively. So next difference will be square of 8 = 64 so $57 + 64 = 121$ which is the missing number in the series.

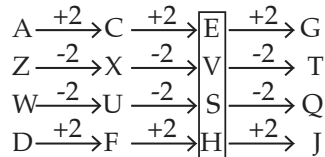
1, 5, 21, 57, 121, 221

25. $rqp \times x/rqp \times x/rqp \times x/rqp \times x$

26. The pattern is as follows:



27. The pattern is as follows:



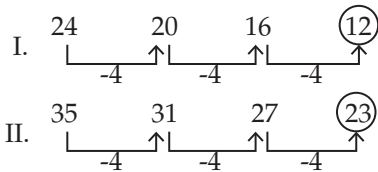
28. Words LUB and TUP are in consecutive order.

LUBTUP LUBTUP LUBTUP LUBTUP

29. The sequence BBCCA is repeated

BBCCABBCCABBCCABBCCA

30. There are two numbers series:



31. $7 \frac{1}{7} = \frac{50}{7}$

$8 \frac{2}{6} = \frac{50}{6}$

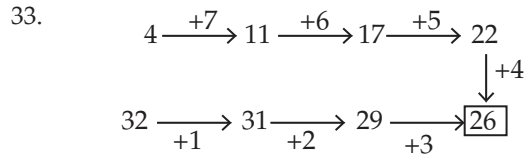
$9 \frac{5}{5} = \frac{50}{5}$

$12 \frac{2}{4} = \frac{50}{4}$

$16 \frac{2}{3} = \frac{50}{3}$

$\frac{50}{7}, \frac{50}{6}, \frac{50}{5}, \frac{50}{4}, \frac{50}{3}, \frac{50}{2}$

32. $Y \xrightarrow{-5} T \xrightarrow{-4} P \xrightarrow{-3} M \xrightarrow{-2} K$



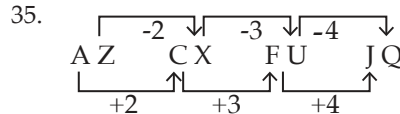
34. $6 + \sqrt{216} = 6 + \sqrt{6 \times 6 \times 6}$

$7 + \sqrt{343} = 7 + \sqrt{7 \times 7 \times 7}$

$8 + \sqrt{512} = 8 + \sqrt{8 \times 8 \times 8}$

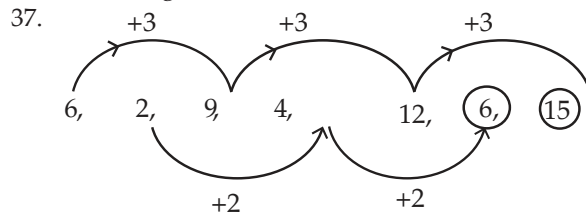
$9 + \sqrt{729} = 9 + \sqrt{9 \times 9 \times 9}$

$10 + 10\sqrt{10} = 10 + \sqrt{1000}$

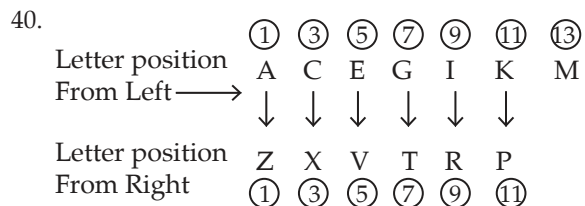
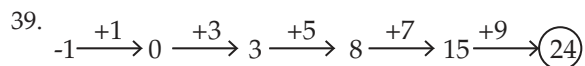
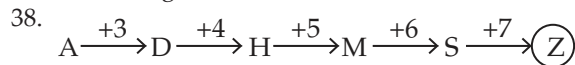


36. The series is mbbmaambbmaambbm

So, missing set of letters is mabam



So, missing terms in the series are 6 and 15.



41. The series is a b c c b a a b c c b a a b c c b a a b c c b a

So, missing set of letters is c a b a a.

42. 15, 28, 30, 39, 48

$15 + 7 = 22$

$22 + 8 = 30$

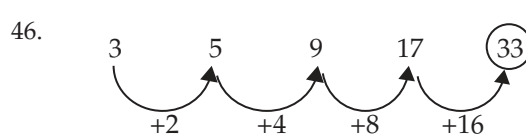
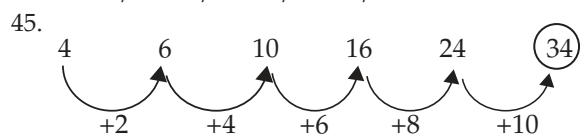
$30 + 9 = 39$

$39 + 9 = 48$

Here, the answer is 28.

43. c c b a a b c c b a a b c c b a a

44. a b c d / b a c d / b c a d / b c d a / a b c d.



47. $B \xrightarrow{+3} E \xrightarrow{+3} H \xrightarrow{+3} K \xrightarrow{+3} \boxed{N}$
 $X \xrightarrow{-4} T \xrightarrow{-4} P \xrightarrow{-4} L \xrightarrow{-4} \boxed{H}$
 $J \xrightarrow{+2} L \xrightarrow{+2} N \xrightarrow{+2} P \xrightarrow{+2} \boxed{R}$

48. SHEELA/SHEELA/SHEELA/SHEELA

49. 1 2 3 4 / 1 2 3 4 / 1 2 3 4 / 1 2 3 4

50. a b a b a b a b a b

51. $2 \xrightarrow{+3} 5 \xrightarrow{+5} 10 \xrightarrow{+7} 17 \xrightarrow{+9} 26 \xrightarrow{+11} \boxed{37}$

52. $F \xrightarrow{+1} G \xrightarrow{+1} H \xrightarrow{+1} I \xrightarrow{+1} J$
 $A \xrightarrow{+0} A \xrightarrow{+0} A \xrightarrow{+0} A \xrightarrow{+0} A$
 $G \xrightarrow{-1} F \xrightarrow{+3} I \xrightarrow{-1} H \xrightarrow{+3} K$

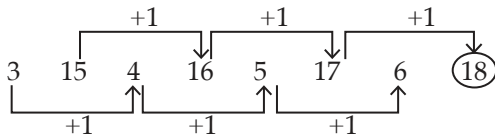
53. $3 + 3 = 6$
 $6 + 3 = 9$
 $9 + 6 = 15$
 $15 + 9 = 24$
 $24 + 15 = 39$
 $39 + 24 = 63$
 $63 + 39 = 102$

54. $-1 \xrightarrow{+1} 0 \xrightarrow{+3} \textcircled{3} \xrightarrow{+5} 8 \xrightarrow{+7} 15 \xrightarrow{+9} 24$

55. $7 \xrightarrow{+7} 14 \xrightarrow{+9} 23 \xrightarrow{+11} 34 \xrightarrow{+13} \textcircled{47}$

56. $A \xrightarrow{+5} F \xrightarrow{+5} K \xrightarrow{+5} \boxed{P} \xrightarrow{+5} U$
 $E \xrightarrow{+5} J \xrightarrow{+5} O \xrightarrow{+5} \boxed{T} \xrightarrow{+5} Y$

57. There are two series:



58. $68 \xrightarrow{+13} 81 \xrightarrow{+15} 96 \xrightarrow{+17} \textcircled{113} \xrightarrow{+19} 132$

59. $2 \times 2 + 1 = 5$
 $2 \times 3 + 1 = 7$
 $2 \times 4 + 1 = 9$
 $2 \times 5 + 1 = 11$
 $121 \xrightarrow{+1} 253 \xrightarrow{+1} 374 \xrightarrow{+1} 495 \xrightarrow{+1} \boxed{511} \xrightarrow{+1} 6$

60. $C \xrightarrow{+4} G \xrightarrow{+4} K \xrightarrow{+4} O \xrightarrow{+4} \textcircled{S}$
 $E \xrightarrow{+4} I \xrightarrow{+4} M \xrightarrow{+4} Q \xrightarrow{+4} \textcircled{U}$

61. $R \xrightarrow{-3} O \xrightarrow{-3} L \xrightarrow{-3} I \xrightarrow{-3} F \xrightarrow{-3} \textcircled{C}$

62. $3 + 0 = 3$
 $2 + 7 = 9$
 $3 + 6 = 9$
 $4 + 5 = 9$
 $7 + 2 = 9$

The wrong number in the given series 30.

63. $\underline{a} \ c \ \underline{b} \ \underline{d}$ /
 $c \ a \ \underline{d} \ \underline{b}$ /
 $a \ c \ \underline{b} \ \underline{d}$ /
 $c \ a \ \underline{d} \ \underline{b}$ /
 $a \ c \ \underline{b} \ \underline{d}$

64. The sequence is :
 $(11)^3, (9)^3, (7)^3, (5)^3, (3)^3$

65. $1 \times 2 = 2$
 $2 \times 3 = 6$
 $6 \times 4 = 24$
 $24 \times 5 = 120$
 $120 \times 6 = 720$
66. $156, 506, ?, 1806$
 $156 + 350 = 506$
 $506 + 550 = 1056$
 $1056 + 750 = 1806$

67. $8 \xrightarrow{+10} 18 \xrightarrow{+14} 32 \xrightarrow{+18} 50 \xrightarrow{+22} 72 \xrightarrow{+26} \boxed{98}$

68. These are two letter series

I Series:

- $B \xrightarrow{+2} D \xrightarrow{+2} F \xrightarrow{+2} H \xrightarrow{+2} J \xrightarrow{+2} \boxed{L}$

II Series:

- $Z \xrightarrow{-2} X \xrightarrow{-2} V \xrightarrow{-2} T \xrightarrow{-2} \boxed{R} \xrightarrow{-2} \boxed{P}$

So, the correct answer is (a) LRP.

PRACTICE QUESTIONS - 1

Directions: In each of the following questions, a series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

1. NOA, PQB, RSC, ?

- (a) TUD (b) DTU
 (c) ENO (d) FNQ

2. AI, BJ, CK, ?

- (a) DL (b) DM
 (c) GH (d) LM

3. ?_ DREQ, GUHT, JXKW

- (a) EFRS (b) TGFS
 (c) JWVI (d) AOBN

4. WTPMIFB _? _? _?
 (a) ZV (b) XU
 (c) YU (d) YV
5. Find the next term in the series:
 BMO, EOQ, HQS, ?
 (a) KSU (b) LMN
 (c) SOV (d) SOW
6. A, D, H, M,?, Z
 (a) B (b) G
 (c) S (d) N
7. WV, PO, IH, BA,?
 (a) ST (b) RS
 (c) UT (d) UV
8. ADVENTURE, DVENTURE, DVENTUR, ?, VENTU
 (a) DVENT (b) VENTURE
 (c) VENTUR (d) DVENTU
 (e) None of these
9. Series: $\frac{AB}{C}, \frac{ZY}{X}, \frac{DE}{F}, \frac{WV}{U}, \frac{GH}{I}$
 (a) $\frac{SR}{Q}$ (b) $\frac{TS}{R}$
 (c) $\frac{ST}{R}$ (d) $\frac{RS}{Q}$
10. $\frac{W}{S}, \frac{U}{O}, \frac{S}{K}, \frac{Q}{G}, ?$
 (a) P/R (b) C/O
 (c) R/J (d) O/C
11. HIIJ, IJJK, JKKL, KLLM, LMMN,?
 (a) LNNO (b) MNNP
 (c) NOOP (d) MNNO
12. DWEV, FUGT, HSIR,?
 (a) JKQP (b) JPQK
 (c) JQKP (d) JPKQ
13. DEF, HIJ, MNO, ?
 (a) STU (b) RST
 (c) RTV (d) SRQ
 (e) TUV
14. b e d f ? h j ? l
 (a) i m (b) m i
 (c) I n (d) j m
15. AMV, FQX, KUZ,?.
 (a) PYB (b) OXA
 (c) NYB (d) MYB
16. Find the next two terms in the series: A, C, F, J, ?, ?
 (a) L, P (b) M, O
 (c) O, U (d) R, V
17. A, B, N, C, D, O, E, F, P, ?, ?, ?
 (a) G, H, I (b) G, H, J
 (c) G, H, Q (d) J, K, L
18. Which term will replace the question mark in the series:
 ABD, DGK, HMS, MTB, SBL, ?
 (a) ZKU (b) ZKW
 (c) ZAB (d) XKW
19. ADG, GJM, MPS,?
 (a) SVW (b) SVY
 (c) SUW (d) SWY
20. (?,) PSVYB, EHKNQ, TWZCF, I LORU
 (a) BEHKN (b) ADGJM
 (c) SVYBE (d) ZCFIL
21. WORLD, XPSME,?, ZRUOG
 (a) YQTNF (b) YRTNF
 (c) YTQNF (d) YQNTF
22. DFI, KMP,?, YAD
 (a) QSV (b) RTW
 (c) SUX (d) RTV
23. A, CD, GHI, ?, UVWXY
 (a) LMNO (b) MNO
 (c) MNOP (d) NOPQ
24. WFB, TGD, QHG, ?
 (a) NIJ (b) NIK
 (c) NJK (d) OIK
 (e) PJK
25. ZTW, YSV, XRU,?
 (a) WTQ (b) QTW
 (c) WQT (d) WQS
26. BMRG, DLTF, FKVE, HJXD, ___? ___
 (a) JIZC (b) JZIB
 (c) GIFB (d) MOLC
27. XYZCBAUVWFE __? __? __?
 (a) DR (b) RS
 (c) DS (d) MN
28. MNOABCPQRDEFST??
 (a) GK (b) UV
 (c) GH (d) UG
29. Y, B, T, G, O, ?
 (a) N (b) M
 (c) L (d) K
30. NOABOPBCPQCD????
 (a) QRDE (b) RTEF
 (c) QSDE (d) QRGI
31. DIB, HMF, LQJ,?
 (a) OTM (b) QVO
 (c) PVO (d) PUN
32. Which term comes next in the series:
 YEB, WFD, UHG, SKI, ?
 (a) QOL (b) QGL
 (c) TOL (d) QNL
33. aAbb, bBcc, cCdd, dDee, eEff,?
 (a) fFhh (b) fFgg
 (c) gHii (d) fHii
34. B, E, I, L, P,?
 (a) T (b) U
 (c) S (d) R
35. AB, DEF, HIJK,?, STUVWX
 (a) LMNOP (b) LMNOR
 (c) MNOPQ (d) QRSTU

36. T, R, P, N, L, ?, ?
 (a) J, G (b) K, I
 (c) J, H (d) K, H
37. ZCBA, YFED, XIHG, ?
 (a) WLKM (b) WJKL
 (c) WKLJ (d) WLKJ
38. FNC, HQG, JTK, ?
 (a) LXO (b) LMO
 (c) KMT (d) LWO
39. QYK, ?, ISG, EPE
 (a) NWJ (b) MVI
 (c) NVI (d) MVJ
40. AGMSY, CIOUA, EKQWC, ?, IOUAG, KQWCI
 (a) GMSYE (b) FMSYE
 (c) GNSYD (d) FMYES
41. a, r, c, s, e, t, g, ____, ____
 (a) x, z (b) u, i
 (c) w, y (d) v, b
42. ?, HJL, NPR, TVX, ZBD
 (a) BDF (b) BFD
 (c) BED (d) CFI
43. Consider the following series:
 A B C D X Y Z | Y X B A | B C D ... Y Z | Y X
 C B A | B C ... Y Z
 (a) B (b) C
 (c) X (d) Y
44. DF, GJ, KM, NQ, RT, ?
 (a) EI (b) UX
 (c) UV (d) XY
45. G, I, L, P, ?
 (a) E (b) U
 (c) O (d) X
46. ejo tyd ins xch ?
 (a) nrw (b) mrw
 (c) msx (d) nsx
 (e) nsw
47. CFI, IKM, OPQ, __?__
 (a) UUU (b) UST
 (c) VUS (d) TUV
48. BDFH, IKMO, PRTV, ?
 (a) WYAC (b) WXYA
 (c) WXYZ (d) WYXA
49. KDW, MGT, OJQ, ?
 (a) MNQ (b) QNM
 (c) NMQ (d) QMN
50. ADH, DGK, GJN, ?
 (a) ORV (b) JMP
 (c) JLM (d) JMQ
51. A E I M ? U
 (a) Q (b) P
 (c) N (d) O
52. V, T, ?, P, N
 (a) S (b) Q
 (c) O (d) R
53. WVTSQPNMKJ??
 (a) HG (b) IL
 (c) GH (d) GF
54. Find the next two letters in the given series.
 B C E H L ??
 (a) XY (b) MN
 (c) QW (d) OP
55. CGK, EJP, GMU, ?
 (a) IRT (b) IPZ
 (c) FNV (d) JLN
56. AGM, BHN, CIO, ?
 (a) COU (b) FQK
 (c) DJP (d) QXD

ANSWER KEY

1. (a)	2. (a)	3. (d)	4. (c)	5. (a)	6. (c)	7. (c)	8. (c)	9. (b)	10. (d)
11. (d)	12. (c)	13. (a)	14. (a)	15. (a)	16. (c)	17. (c)	18. (b)	19. (b)	20. (b)
21. (a)	22. (b)	23. (c)	24. (b)	25. (c)	26. (a)	27. (a)	28. (d)	29. (c)	30. (a)
31. (d)	32. (a)	33. (b)	34. (c)	35. (c)	36. (c)	37. (d)	38. (d)	39. (b)	40. (a)
41. (b)	42. (a)	43. (a)	44. (b)	45. (b)	46. (b)	47. (a)	48. (a)	49. (d)	50. (d)
51. (a)	52. (d)	53. (a)	54. (c)	55. (b)	56. (c)				

EXPLANATIONS

$$\begin{array}{cccc}
 14 & \xrightarrow{+2} & 16 & \xrightarrow{+2} & 18 & \xrightarrow{+2} & 20 \\
 N & & P & & R & & T \\
 15 & \xrightarrow{+2} & 17 & \xrightarrow{+2} & 19 & \xrightarrow{+2} & 21 \\
 O & & Q & & S & & U \\
 1 & \xrightarrow{+1} & 2 & \xrightarrow{+1} & 3 & \xrightarrow{+1} & 4 \\
 A & & B & & C & & D
 \end{array}$$

2. 1st letter:

$$A \xrightarrow{+1} B \xrightarrow{+1} C \xrightarrow{+1} \textcircled{D}$$

2nd letter:

$$I \xrightarrow{+1} J \xrightarrow{+1} K \xrightarrow{+1} \textcircled{L}$$

$$\begin{array}{cccc}
 A & \xrightarrow{+3} & D & \xrightarrow{+3} & G & \xrightarrow{+3} & J \\
 O & \xrightarrow{+3} & R & \xrightarrow{+3} & U & \xrightarrow{+3} & X \\
 B & \xrightarrow{+3} & E & \xrightarrow{+3} & H & \xrightarrow{+3} & K \\
 N & \xrightarrow{+3} & Q & \xrightarrow{+3} & T & \xrightarrow{+3} & W
 \end{array}$$

$$\begin{array}{cccc}
 W & \xrightarrow{-3} & T & \xrightarrow{-4} & P & \xrightarrow{-3} & M & \xrightarrow{-4} & I \\
 & \xrightarrow{-3} & F & \xrightarrow{-4} & B & \xrightarrow{-3} & Y & \xrightarrow{-4} & U
 \end{array}$$

5. The following pattern is obtained in the series:

$$1^{\text{st}} \text{ Word: } B \xrightarrow{+3} E \xrightarrow{+3} H \xrightarrow{+3} K$$

$$2^{\text{nd}} \text{ Word: } M \xrightarrow{+2} O \xrightarrow{+2} Q \xrightarrow{+2} S$$

$$3^{\text{rd}} \text{ Word: } O \xrightarrow{+2} Q \xrightarrow{+2} S \xrightarrow{+2} U$$

Thus, the missing term is KSU.

$$6. \quad A \xrightarrow{+3} D \xrightarrow{+4} H \xrightarrow{+5} M \xrightarrow{+6} \boxed{S} \xrightarrow{+7} Z$$

$$\begin{array}{cccc}
 W & \xrightarrow{-7} & P & \xrightarrow{-7} & I & \xrightarrow{-7} & B & \xrightarrow{-7} & \boxed{U} \\
 V & \xrightarrow{-7} & O & \xrightarrow{-7} & H & \xrightarrow{-7} & A & \xrightarrow{-7} & \boxed{T}
 \end{array}$$

8. One letter from the beginning and one from the end of a term are removed, one by one, in alternate steps.

$$\begin{array}{cccc}
 \underline{AB} & \xrightarrow{+2} & \underline{DE} & \xrightarrow{+2} & \underline{GH} \\
 C & & F & & I \\
 \downarrow & & \uparrow & & \uparrow \\
 & +3 & & +3 & \\
 \underline{ZY} & \xrightarrow{+2} & \underline{WV} & \xrightarrow{+2} & \underline{TS} \\
 X & & U & & R \\
 \downarrow & & \uparrow & & \uparrow \\
 & -3 & & -3 &
 \end{array}$$

$$\begin{array}{cccc}
 W & \xrightarrow{-2} & U & \xrightarrow{-2} & S & \xrightarrow{-2} & Q & \xrightarrow{-2} & \boxed{O} \\
 S & \xrightarrow{-4} & O & \xrightarrow{-4} & K & \xrightarrow{-4} & G & \xrightarrow{-4} & \boxed{C}
 \end{array}$$

11. HIII, IJJK, JKKL, KLLM, LMMN,?

Each and every letter in a term is succeeded by its next letter in its consecutive terms.

Obviously, the next term will be MNNO.

$$\begin{array}{cccc}
 D & \xrightarrow{+2} & F & \xrightarrow{+2} & H & \xrightarrow{+2} & J \\
 W & \xrightarrow{-2} & U & \xrightarrow{-2} & S & \xrightarrow{-2} & Q \\
 E & \xrightarrow{+2} & G & \xrightarrow{+2} & I & \xrightarrow{+2} & K \\
 V & \xrightarrow{-2} & T & \xrightarrow{-2} & R & \xrightarrow{-2} & P
 \end{array}$$

13. 1st letter:

$$D \xrightarrow{+4} H \xrightarrow{+5} M \xrightarrow{+6} \textcircled{S}$$

2nd letter:

$$E \xrightarrow{+4} I \xrightarrow{+5} N \xrightarrow{+6} \textcircled{T}$$

3rd letter:

$$F \xrightarrow{+4} J \xrightarrow{+5} O \xrightarrow{+6} \textcircled{U}$$

14. The series may be divided into groups as shown:

b e d / f ? h / j ? l

Clearly in the first group, the second and third letters are respectively three and two steps ahead of the first letter. A similar pattern would follow in the second and third groups.

$$\begin{array}{cccc}
 A & \xrightarrow{+5} & F & \xrightarrow{+5} & K & \xrightarrow{+5} & P \\
 M & \xrightarrow{+4} & Q & \xrightarrow{+4} & U & \xrightarrow{+4} & Y \\
 V & \xrightarrow{+2} & X & \xrightarrow{+2} & Z & \xrightarrow{+2} & B
 \end{array}$$

16. Here, the first, second, third,..... letters of the series are respectively moved two, three, four,..... Steps forward to obtain the successive terms of the series.

Thus, the fifth term in the series must be a letter which is five steps ahead of J i.e., O, while the sixth term must be a letter six steps ahead of O i.e., U.

Thus, the resultant series will be

$$A \xrightarrow{+2} C \xrightarrow{+3} F \xrightarrow{+4} J \xrightarrow{+5} O \xrightarrow{+6} U$$

So, the missing terms are O and U.

17. The given series may be divided into 2 groups:

I. A, B, C, D, E, F, ?, ? and II. N, O, P, ?

Clearly, the given series consists of two terms of I followed by one term of II.

The missing terms in I are G and H while the missing term in II in Q.

18. The individual letters of the terms of the given series follows the pattern given below:

Thus, the missing term is ZKW.

$$\text{1st Letter: } A \xrightarrow{+3} D \xrightarrow{+4} H \xrightarrow{+5} M \xrightarrow{+6} S \xrightarrow{+7} \boxed{Z}$$

$$\text{2nd Letter: } B \xrightarrow{+5} G \xrightarrow{+6} M \xrightarrow{+7} T \xrightarrow{+8} B \xrightarrow{+9} \boxed{K}$$

$$\text{3rd Letter: } D \xrightarrow{+7} K \xrightarrow{+8} S \xrightarrow{+9} B \xrightarrow{+10} L \xrightarrow{+11} \boxed{W}$$

Thus, the missing term is ZKW

- 19.

$$\begin{array}{l} 1 \xrightarrow{+6} 7 \xrightarrow{+6} 13 \xrightarrow{+6} \boxed{19} \\ A \xrightarrow{+6} G \xrightarrow{+6} M \xrightarrow{+6} S \\ 4 \xrightarrow{+6} 10 \xrightarrow{+6} 16 \xrightarrow{+6} \boxed{22} \\ D \xrightarrow{+6} J \xrightarrow{+6} P \xrightarrow{+6} V \\ 7 \xrightarrow{+6} 13 \xrightarrow{+6} 19 \xrightarrow{+6} \boxed{25} \\ G \xrightarrow{+6} M \xrightarrow{+6} S \xrightarrow{+6} Y \end{array}$$

- 20.

$$P \xrightarrow{+3} S \xrightarrow{+3} V \xrightarrow{+3} Y \xrightarrow{+3} B$$

$$E \xrightarrow{+3} H \xrightarrow{+3} K \xrightarrow{+3} N \xrightarrow{+3} Q$$

$$T \xrightarrow{+3} W \xrightarrow{+3} Z \xrightarrow{+3} C \xrightarrow{+3} F$$

$$I \xrightarrow{+3} L \xrightarrow{+3} O \xrightarrow{+3} R \xrightarrow{+3} U$$

$$\text{Now, } P \xrightarrow{+4} T, \quad E \xrightarrow{+4} I$$

Therefore, the first letter of the first term should be

$$E \xrightarrow{-4} A$$

$$A \xrightarrow{+3} D \xrightarrow{+3} G \xrightarrow{+3} J \xrightarrow{+3} M$$

- 21.

$$W \xrightarrow{+1} X \xrightarrow{+1} \boxed{Y} \xrightarrow{+1} Z$$

$$O \xrightarrow{+1} P \xrightarrow{+1} \boxed{Q} \xrightarrow{+1} R$$

$$R \xrightarrow{+1} S \xrightarrow{+1} \boxed{T} \xrightarrow{+1} U$$

$$L \xrightarrow{+1} M \xrightarrow{+1} \boxed{N} \xrightarrow{+1} O$$

$$D \xrightarrow{+1} E \xrightarrow{+1} \boxed{F} \xrightarrow{+1} G$$

- 22.

$$D \xrightarrow{+7} K \xrightarrow{+7} R \xrightarrow{+7} Y$$

$$F \xrightarrow{+7} M \xrightarrow{+7} T \xrightarrow{+7} A$$

$$I \xrightarrow{+7} P \xrightarrow{+7} W \xrightarrow{+7} D$$

23. Each term consists of consecutive letters in order. The number of letters in the terms goes on increasing by one at each step. Also, there is a gap of one letter between the last letter of the first term and the first letter of the second term; a gap of two letters between the last letter of the second term and the first letter of the third term; and so on. So, there should be a gap of three letters between the last letter of the third term and the first letter of the desired term. Hence, LMNO is the missing term in the series.

24. 1st letter:

$$W \xrightarrow{-3} T \xrightarrow{-3} Q \xrightarrow{-3} \boxed{N}$$

2nd letter:

$$F \xrightarrow{+1} G \xrightarrow{+1} H \xrightarrow{+1} \boxed{I}$$

3rd letter:

$$B \xrightarrow{+2} D \xrightarrow{+3} G \xrightarrow{+4} \boxed{K}$$

- 25.

$$Z \xrightarrow{-1} Y \xrightarrow{-1} X \xrightarrow{-1} \boxed{W}$$

$$T \xrightarrow{-1} S \xrightarrow{-1} R \xrightarrow{-1} \boxed{Q}$$

$$W \xrightarrow{-1} V \xrightarrow{-1} U \xrightarrow{-1} \boxed{T}$$

- 26.

$$B \xrightarrow{+2} D \xrightarrow{+2} F \xrightarrow{+2} H \xrightarrow{+2} \boxed{J}$$

$$M \xrightarrow{+2} L \xrightarrow{+2} K \xrightarrow{+2} J \xrightarrow{+2} \boxed{I}$$

$$R \xrightarrow{+2} T \xrightarrow{+2} V \xrightarrow{+2} X \xrightarrow{+2} \boxed{Z}$$

$$G \xrightarrow{+2} F \xrightarrow{+2} E \xrightarrow{+2} D \xrightarrow{+2} \boxed{C}$$

27. XYZCBAUVWFE __?__?__

$$X Y Z \quad U V W \quad \boxed{R} \quad S T$$

$$C B A \quad F E \quad \boxed{D}$$

The preceding three terms of the first three letters is placed after every three letters. Similarly, the next three letters also had its preceding three terms after the next three letters. In this way, DR is the next term in the series.

- 28.

$$\boxed{MNO} \quad \boxed{PQR} \quad \boxed{STU}$$

$$\boxed{ABC} \quad \boxed{DEF} \quad \boxed{GHI}$$

The consecutive terms of the first three letters is placed after every three letters. Similarly, the next three letters also had its consecutive terms after the next three letters. In this way, UG is the next term in the given series.

29. The given sequence is a combination of two series:

I. Y, T, O and II. B, G, ?

I consists of 2nd, 7th and 12th letters from the end of the English alphabet, while

II consists of 2nd, 7th and 12th letters from the beginning of the English alphabet.

So, the missing letter in II is the 12th letter from the beginning of the English alphabet, which is L.

- 30.

$$N \xrightarrow{+1} O \xrightarrow{+1} P \xrightarrow{+1} Q$$

$$O \xrightarrow{+1} P \xrightarrow{+1} Q \xrightarrow{+1} R$$

$$A \xrightarrow{+1} B \xrightarrow{+1} C \xrightarrow{+1} D$$

$$B \xrightarrow{+1} C \xrightarrow{+1} D \xrightarrow{+1} E$$

- 31.

$$4 \xrightarrow{+4} 8 \xrightarrow{+4} 12 \xrightarrow{+4} \boxed{16}$$

$$9 \xrightarrow{+4} 13 \xrightarrow{+4} 17 \xrightarrow{+4} \boxed{21}$$

$$2 \xrightarrow{+4} 6 \xrightarrow{+4} 10 \xrightarrow{+4} \boxed{14}$$

32. The pattern followed in the first, second and third series is observed as follows:

$$1^{\text{st}} \text{ Letter: } Y \xrightarrow{-2} W \xrightarrow{-2} U \xrightarrow{-2} S \xrightarrow{-2} Q$$

$$2^{\text{nd}} \text{ Letter: } E \xrightarrow{+1} F \xrightarrow{+2} H \xrightarrow{+3} K \xrightarrow{+4} O$$

$$3^{\text{rd}} \text{ Letter: } B \xrightarrow{+2} D \xrightarrow{+3} G \xrightarrow{+2} I \xrightarrow{+3} L$$

Thus, the missing term is QOL.

33. The second element of each term has been written in capital letter

$$a \longrightarrow b \longrightarrow c \longrightarrow d \longrightarrow e \longrightarrow f$$

$$b \longrightarrow c \longrightarrow d \longrightarrow e \longrightarrow f \longrightarrow g$$

Therefore, ? = ffGg

$$34. \begin{array}{ccccccc} 2 & +3 & 5 & +4 & 9 & +3 & 12 & +4 & 16 & +3 & \boxed{19} \\ B & \longrightarrow & E & \longrightarrow & I & \longrightarrow & L & \longrightarrow & P & \longrightarrow & S \end{array}$$

$$35. \begin{array}{c} AB \\ \downarrow +2 \\ DEF \\ \downarrow +2 \\ HIJK \\ \downarrow +2 \\ \boxed{MNOPQ} \\ \downarrow +2 \\ STUVWX \end{array}$$

In each next term one letter is increasing.

$$36. \begin{array}{ccccccc} 20 & -2 & 18 & -2 & 16 & -2 & \\ T & \longrightarrow & R & \longrightarrow & P & \longrightarrow & \\ 24 & -2 & 12 & -2 & \boxed{10} & -2 & \boxed{8} \\ N & \longrightarrow & L & \longrightarrow & J & \longrightarrow & H \end{array}$$

$$37. \begin{array}{ccccccc} Z & \xrightarrow{-1} & Y & \xrightarrow{-1} & X & \xrightarrow{-1} & W \\ C & \xrightarrow{+3} & F & \xrightarrow{+3} & I & \xrightarrow{+3} & L \end{array}$$

$$B \xrightarrow{+3} E \xrightarrow{+3} H \xrightarrow{+3} K$$

$$A \xrightarrow{+3} D \xrightarrow{+3} G \xrightarrow{+3} J$$

$$38. \begin{array}{ccccccc} F & \xrightarrow{+2} & H & \xrightarrow{+2} & J & \xrightarrow{+2} & \boxed{L} \\ N & \xrightarrow{+3} & Q & \xrightarrow{+3} & T & \xrightarrow{+3} & \boxed{W} \\ C & \xrightarrow{+4} & G & \xrightarrow{+4} & K & \xrightarrow{+4} & \boxed{O} \end{array}$$

$$39. \begin{array}{ccccccc} 17 & -4 & \boxed{13} & -4 & 9 & -4 & 5 \\ Q & \longrightarrow & M & \longrightarrow & I & \longrightarrow & E \\ 25 & -3 & \boxed{22} & -3 & 19 & -3 & 16 \\ Y & \longrightarrow & V & \longrightarrow & S & \longrightarrow & P \\ 11 & -2 & \boxed{9} & -2 & 7 & -2 & 5 \\ K & \longrightarrow & I & \longrightarrow & G & \longrightarrow & E \end{array}$$

$$40. \begin{array}{ccccccc} A & \xrightarrow{+2} & C & \xrightarrow{+2} & E & \xrightarrow{+2} & G & \xrightarrow{+2} & I & \xrightarrow{+2} & K \\ G & \xrightarrow{+2} & I & \xrightarrow{+2} & K & \xrightarrow{+2} & M & \xrightarrow{+2} & O & \xrightarrow{+2} & Q \\ M & \xrightarrow{+2} & O & \xrightarrow{+2} & Q & \xrightarrow{+2} & S & \xrightarrow{+2} & U & \xrightarrow{+2} & W \\ S & \xrightarrow{+2} & U & \xrightarrow{+2} & W & \xrightarrow{+2} & Y & \xrightarrow{+2} & A & \xrightarrow{+2} & C \\ Y & \xrightarrow{+2} & A & \xrightarrow{+2} & C & \xrightarrow{+2} & E & \xrightarrow{+2} & G & \xrightarrow{+2} & I \end{array}$$

41. There are two alternating series:

$$\begin{array}{ccccccc} a & \xrightarrow{+2} & c & \xrightarrow{+2} & e & \xrightarrow{+2} & g & \xrightarrow{+2} & i \\ r & \xrightarrow{+1} & s & \xrightarrow{+1} & t & \xrightarrow{+1} & u \end{array}$$

Therefore, ? = ui

$$42. \begin{array}{ccccccc} 2 & \xrightarrow{+6} & 8 & \xrightarrow{+6} & 14 & \xrightarrow{+6} & 20 & \xrightarrow{+6} & 26 \\ B & \longrightarrow & H & \longrightarrow & N & \longrightarrow & T & \longrightarrow & Z \\ 4 & \xrightarrow{+6} & 10 & \xrightarrow{+6} & 16 & \xrightarrow{+6} & 22 & \xrightarrow{+6} & 28 \quad (26 + 2) \\ D & \longrightarrow & J & \longrightarrow & P & \longrightarrow & V & \longrightarrow & B \\ 6 & \xrightarrow{+6} & 12 & \xrightarrow{+6} & 18 & \xrightarrow{+6} & 24 & \xrightarrow{+6} & 30 \quad (26 + 4) \\ F & \longrightarrow & L & \longrightarrow & R & \longrightarrow & X & \longrightarrow & D \end{array}$$

43. We have 3 patterns:

I. ABCXYZ which occurs only once.

II. YX....YZ, which repeats alternately.

Now, I has 26 terms.

So, number of terms before the desired term = $(999 - 26) = 973$

Each of the patterns which occurs after I, has 25 letters.

Now, $973 \div 25$ gives quotient = 38 and remainder = 23.

Thus, the 1000th term of the given series is the 24th term of the 39th pattern after I.

Clearly, the 39th pattern is II and its 24th term is B.

$$44. \begin{array}{ccccccc} D & \xrightarrow{+3} & G & \xrightarrow{+4} & K & \xrightarrow{+3} & N & \xrightarrow{+4} & R & \xrightarrow{+3} & \boxed{U} \\ F & \xrightarrow{+4} & J & \xrightarrow{+3} & M & \xrightarrow{+4} & Q & \xrightarrow{+3} & T & \xrightarrow{+4} & \boxed{X} \end{array}$$

$$45. \begin{array}{ccccccc} 7 & +2 & 9 & +3 & 12 & +4 & 16 & +5 & 21 \\ G & \longrightarrow & I & \longrightarrow & L & \longrightarrow & P & \longrightarrow & U \end{array}$$

46. There is a gap of four letters between the first and second, the second and third letters of each term, and also between the last letter of a term and the first letter of the next term.

$$47. \begin{array}{ccccccc} C & \xrightarrow{+6} & I & \xrightarrow{+6} & O & \xrightarrow{+6} & U \\ F & \xrightarrow{+5} & K & \xrightarrow{+5} & P & \xrightarrow{+5} & U \\ I & \xrightarrow{+4} & M & \xrightarrow{+4} & Q & \xrightarrow{+4} & U \end{array}$$

$$48. \begin{array}{ccccccc} B & \xrightarrow{+7} & I & \xrightarrow{+7} & P & \xrightarrow{+7} & W \\ D & \xrightarrow{+7} & K & \xrightarrow{+7} & R & \xrightarrow{+7} & Y \\ F & \xrightarrow{+7} & M & \xrightarrow{+7} & T & \xrightarrow{+7} & A \\ H & \xrightarrow{+7} & O & \xrightarrow{+7} & V & \xrightarrow{+7} & C \end{array}$$

$$49. \begin{array}{ccccccc} K & \xrightarrow{+2} & M & \xrightarrow{+2} & O & \xrightarrow{+2} & Q \\ D & \xrightarrow{+3} & G & \xrightarrow{+3} & J & \xrightarrow{+3} & M \\ W & \xrightarrow{-3} & T & \xrightarrow{-3} & Q & \xrightarrow{-3} & N \end{array}$$

$$50. \begin{array}{ccccccc} 1 & +3 & 4 & +3 & 7 & +3 & \boxed{10} \\ A & \longrightarrow & D & \longrightarrow & G & \longrightarrow & J \\ 4 & +3 & 7 & +3 & 10 & +3 & \boxed{13} \\ D & \longrightarrow & G & \longrightarrow & J & \longrightarrow & M \\ 8 & +3 & 11 & +3 & 14 & +3 & \boxed{17} \\ H & \longrightarrow & K & \longrightarrow & N & \longrightarrow & Q \end{array}$$

$$51. \begin{array}{ccccccc} 1 & +4 & 5 & +4 & 9 & +4 & 13 & +4 & \boxed{17} & +4 & 21 \\ A & \longrightarrow & E & \longrightarrow & I & \longrightarrow & M & \longrightarrow & Q & \longrightarrow & U \end{array}$$

$$52. \quad 22 \xrightarrow{-2} 20 \xrightarrow{-2} \boxed{18} \xrightarrow{-2} 16 \xrightarrow{-2} 14$$

$$53. \quad \begin{array}{ccccccccc} & & -2 & & -2 & & -2 & & -2 & & -2 & & \\ & & \downarrow & & \downarrow & & \downarrow & & \downarrow & & \downarrow & & \\ W & V & T & S & Q & P & N & M & K & J & H & G \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \\ -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & -1 & \end{array}$$

$$54. \quad \begin{array}{l} B \xrightarrow{+1} C \xrightarrow{+2} E \xrightarrow{+3} \\ H \xrightarrow{+4} L \xrightarrow{+5} Q \xrightarrow{+6} W \end{array}$$

$$55. \quad \begin{array}{l} C \xrightarrow{+2} E \xrightarrow{+2} G \xrightarrow{+2} I \\ G \xrightarrow{+3} J \xrightarrow{+3} M \xrightarrow{+3} P \\ K \xrightarrow{+5} P \xrightarrow{+5} U \xrightarrow{+5} Z \end{array}$$

$$56. \quad \begin{array}{l} A \xrightarrow{+1} B \xrightarrow{+1} C \xrightarrow{+1} \boxed{D} \\ G \xrightarrow{+1} H \xrightarrow{+1} I \xrightarrow{+1} J \\ M \xrightarrow{+1} N \xrightarrow{+1} O \xrightarrow{+1} P \end{array}$$

PRACTICE QUESTIONS - 2

Directions: In each of the following questions, a series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

1. 5760, 960, ?, 48, 16, 8
(a) 240 (b) 192
(c) 160 (d) 120
2. 12, 21, 23, 32, 34, ?
(a) 43 (b) 41
(c) 25 (d) 35
3. 100, 52, 28, 16, 10, ?
(a) 5 (b) 7
(c) 8 (d) 9
4. 3, 4, 7, 7, 13, 13, 21, 22, 31, 34, ?
(a) 42 (b) 43
(c) 51 (d) 52
5. 2460, 3570, 4680, ?
(a) 8640 (b) 5670
(c) 5970 (d) 5790
6. 3, 7, 15, 31, 63, 127, ?
(a) 255 (b) 260
(c) 245 (d) 265
7. 1, 9, 25, 49, 81, ?
(a) 100 (b) 112
(c) 121 (d) 144
8. 1, 4, 27, 16, ?, 36, 343
(a) 25 (b) 87
(c) 120 (d) 125
9. 11, 10, ?, 100, 1001, 1000, 10001
(a) 101 (b) 110
(c) 111 (d) None of these
10. 4117, 5138, 6159, 7170, ?
(a) 7138 (b) 7659
(c) 8191 (d) 8179
11. 20, 20, 19, 16, 17, 13, 14, 11, ?, ?
(a) 10, 10 (b) 10, 11
(c) 13, 14 (d) 13, 16
12. 264, 396, 473, 583, ?
(a) 597 (b) 673
(c) 729 (d) 792
13. 48, 24, 96, 48, 192, ___?
(a) 98 (b) 90
(c) 96 (d) 76
14. 4, 6, 12, 14, 28, 30, ?
(a) 32 (b) 60
(c) 62 (d) 64
15. 1, 5, 13, 25, 41, ?
(a) 51 (b) 57
(c) 61 (d) 63
16. In the series 10, 17, 24, 32, 38,..... Which of the following will be a number of the series?
(a) 48 (b) 346
(c) 574 (d) 1003
17. 8, 17, 36, 75, ?
(a) 154 (b) 124
(c) 174 (d) 144
18. 1, 3, 4, 7, 11?
(a) 18 (b) 17
(c) 15 (d) 16
19. 118, 182, 186, 222, ?
(a) 318 (b) 266
(c) 258 (d) 226
20. 1, 3, 3, 6, 7, 9, ?, 12, 21
(a) 10 (b) 11
(c) 12 (d) 13
21. 5, 2, 7, 9, 16, 25, ?
(a) 41 (b) 45
(c) 48 (d) 52
22. 10, 100, 200, 310?
(a) 400 (b) 410
(c) 420 (d) 430
23. 5, 9, 13, 17, ?, 25
(a) 27 (b) 23
(c) 21 (d) 19
24. 240, ?, 120, 40, 10, 2
(a) 180 (b) 240
(c) 420 (d) 480
25. 7, 22, 37, ?, 67, 82
(a) 40 (b) 42
(c) 52 (d) 62

26. 6, 11, 21, 36, 56, ?
 (a) 51 (b) 91
 (c) 42 (d) 81
27. 100, 200, 310, 430, ?
 (a) 550 (b) 510
 (c) 520 (d) 560
28. 3, 10, 20, 33, 49, 68, ?
 (a) 75 (b) 85
 (c) 90 (d) 91
29. 2, 1, 2, 4, 4, 5, 6, 7, 8, 8, 10, 11, ?
 (a) 9 (b) 10
 (c) 11 (d) 12
30. $4/12/95$, $1/1/96$, $29/1/96$, $26/2/96$, ?
 (a) $24/3/96$ (b) $25/3/96$
 (c) $26/3/96$ (d) $27/3/96$
31. In the series 2, 6, 18, 54, ..., what will be the 8th term?
 (a) 4370 (b) 4374
 (c) 7443 (d) 7434
32. 15, 31, 64, 131, ?
 (a) 266 (b) 256
 (c) 192 (d) 524
33. 3, 10, 101, ?
 (a) 10101 (b) 11012
 (c) 10202 (d) 10201
34. 13, 35, 57, 79, 911, ?
 (a) 1110 (b) 1112
 (c) 1113 (d) 1315
35. 7714, 7916, 8109, ?
 (a) 8311 (b) 8312
 (c) 8509 (d) 8515
36. 5824, 5242, ?, 4247, 3823
 (a) 4467 (b) 4718
 (c) 4856 (d) 5164
37. 6, 10, 18, 34, ?
 (a) 46 (b) 56
 (c) 66 (d) 76
38. 3, 10, 29, 66, 127, ?
 (a) 164 (b) 187
 (c) 216 (d) 218
39. 40, 60, 47, 53, 54, ?
 (a) 33 (b) 39
 (c) 46 (d) 61
40. 18, 24, 21, 27, ?, 30, 27
 (a) 33 (b) 30
 (c) 24 (d) 21
41. 2, 12, 36, 80, 150, ?
 (a) 194 (b) 210
 (c) 252 (d) 258
42. 1, 4, 10, 22, 46, ?
 (a) 64 (b) 86
 (c) 94 (d) 122
43. 4, 8, 12, 24, 36, ?
 (a) 72 (b) 48
 (c) 60 (d) 144
44. 3, 8, 13, 24, 41, ?
 (a) 70 (b) 75
 (c) 80 (d) 85
45. 3, 28, 4, 65, 5, 126, 6, ?
 (a) 215 (b) 216
 (c) 217 (d) 218
46. 3691, 6931, 9361, 3691, ?
 (a) 1369 (b) 6931
 (c) 1963 (d) 3961
47. Which of the following will not be a number of the series 1, 8, 27, 64, 125,.... ?
 (a) 256 (b) 512
 (c) 729 (d) 1000
48. 1, 9, 25, 49, ?, 121
 (a) 64 (b) 81
 (c) 91 (d) 100
49. 0, 2, 6, 12,?, 30, 42
 (a) 24 (b) 20
 (c) 21 (d) 22
50. 5, 7, 11, 19, 35, 67,?, 259
 (a) 130 (b) 129
 (c) 131 (d) 140
51. 3, 15, 35, 63, ?
 (a) 77 (b) 84
 (c) 99 (d) 98
52. 22, 24, 28,?, 52, 84
 (a) 46 (b) 36
 (c) 38 (d) 42
53. In the series 3, 9, 15, ..., what will be the 21st term?
 (a) 117 (b) 121
 (c) 123 (d) 129
54. 110, 132, 156,?, 210
 (a) 162 (b) 172
 (c) 182 (d) 192
55. 1, 2, 2, 4, 8, ?
 (a) 8 (b) 9
 (c) 16 (d) 32
56. 7, 12, 22, 37,?, 82, 112, 147
 (a) 50 (b) 58
 (c) 57 (d) 156
57. -1, 2, 7, ?, 23, 34, 47
 (a) 13 (b) 14
 (c) 12 (d) 15
58. 3, 7, 23, 95, ?
 (a) 575 (b) 479
 (c) 128 (d) 62
59. 10, 22, 46, 94, ?
 (a) 180 (b) 184
 (c) 190 (d) 140
60. 2, 5, 10, 17, 26, 37, 50, ?
 (a) 63 (b) 65
 (c) 67 (d) 69

61. 2, 5, 9, 19, 37, ?
 (a) 73 (b) 75 (c) 35 (d) 56
 (c) 76 (d) 78
62. 4, 3, 7, 10, 17, 27, ?
 (a) 44 (b) 34 (c) 81 (d) 82
 (c) 52 (d) 48
63. 4, 24, 48, 80, ?, 168
 (a) 120 (b) 108 (c) 87 (d) 86
 (c) 96 (d) 72
64. 3, 15, ?, 63, 99, 143
 (a) 27 (b) 45 (c) 20 (d) 23
65. 26, 37, 50, 65, ?, 101
 (a) 77 (b) 80
 (c) 81 (d) 82
66. 10, 18, 28, 40, 54, 70, ?
 (a) 85 (b) 86
 (c) 87 (d) 88
67. 33, 28, 24, ?, 19, 18
 (a) 21 (b) 22
 (c) 20 (d) 23

ANSWER KEY

1. (b)	2. (a)	3. (b)	4. (b)	5. (d)	6. (a)	7. (c)	8. (d)	9. (a)	10. (c)
11. (a)	12. (d)	13. (c)	14. (b)	15. (c)	16. (b)	17. (a)	18. (a)	19. (d)	20. (d)
21. (a)	22. (d)	23. (c)	24. (b)	25. (c)	26. (d)	27. (d)	28. (c)	29. (b)	30. (b)
31. (b)	32. (a)	33. (c)	34. (c)	35. (a)	36. (b)	37. (c)	38. (d)	39. (c)	40. (c)
41. (c)	42. (c)	43. (a)	44. (a)	45. (c)	46. (b)	47. (a)	48. (b)	49. (b)	50. (c)
51. (c)	52. (b)	53. (c)	54. (c)	55. (c)	56. (c)	57. (b)	58. (b)	59. (c)	60. (b)
61. (b)	62. (a)	63. (a)	64. (c)	65. (d)	66. (d)	67. (a)			

EXPLANATIONS

1.
$$\begin{array}{ccccccc} 5760 & 960 & \boxed{192} & 48 & 16 & 8 \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ \div 6 & \div 5 & \div 4 & \div 3 & \div 2 & \div 2 \end{array}$$

2.
$$\begin{array}{ccccccc} & & +11 & & +11 & & \\ & & \downarrow & & \downarrow & & \\ 12 & 21 & 23 & 32 & 34 & \boxed{43} \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ +11 & +11 & & & & & \end{array}$$

3. The given number series is based on the following pattern:

$$\frac{100}{2} + 2 = 50 + 2 = 52$$

$$\frac{52}{2} + 2 = 26 + 2 = 28$$

$$\frac{28}{2} + 2 = 14 + 2 = 16$$

$$\frac{16}{2} + 2 = 8 + 2 = 10$$

$$\frac{10}{2} + 2 = 5 + 2 = 7$$

4. The given series is the combination of the following two series.

First series: 3, 7, 13, 21, 31, ?

Second series: 4, 7, 13, 22, 34

Pattern in First Series: + 4, + 6, + 8, + 10, ...

Pattern in Second Series: + 3, + 6, + 9, + 12, ...

Hence, the missing term = 31 + 12 = 43.

5. The given number is based on the following pattern:

$$24 + 11 = 35 \text{ \& } 60 + 10 = 70$$

$$35 + 11 = 46 \text{ \& } 70 + 10 = 80$$

$$46 + 11 = 57 \text{ \& } 80 + 10 = 90$$

Therefore, the number 5790 would come in the place of question mark.

6. Here on adding 1 to the double of the first term, we get the next term.

$$\text{As required } 3 \times 2 + 1 = 7$$

$$7 \times 2 + 1 = 15$$

$$15 \times 2 + 1 = 31$$

$$31 \times 2 + 1 = 63$$

$$63 \times 2 + 1 = 127$$

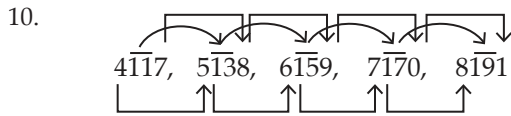
$$127 \times 2 + 1 = 255$$

7. The series consists of squares of consecutive odd number i.e. $1^2, 3^2, 5^2, 7^2, 9^2, \dots$

So, missing term $11^2 = 121$.

8. Clearly, the given series consists of cubes of odd numbers and squares of even numbers.
i.e., $1^3, 2^2, 3^3, 4^2, 5^3, 6^2, 7^3$
So, the missing term = $5^3 = 125$

9. The pattern is $-1, \times 10 + 1, -1, \times 10 + 1, -1, \times 10 + 1, \dots$
Hence, the missing term = $10 \times 10 + 1 = 101$



1st series 4, 5, 6, 7, 8

2nd series 11, 13, 15, 17, 19

3rd series 7, 8, 9, 0, 1

11. Let the missing terms of the series by x_1 and x_2 .
Thus, the sequence 20, 20, 19, 16, 17, 13, 14, 11, x_1 , x_2 is a combination of two series:
I. 20, 19, 17, 14, x_1 and II. 20, 16, 13, 11, x_2
The pattern in I is $-1, -2, -3, \dots$ So, missing term, $x_1 = 14 - 4 = 10$.
The pattern in II is $-4, -3, -2, \dots$ So, missing term, $x_2 = 11 - 1 = 10$.

12. The sum of the first and third digits is equal to the middle digit.
 $2 + 4 = 6, 3 + 6 = 9, 4 + 3 = 7, 5 + 3 = 8$
Similarly,
 $7 + 2 = 9$

13. The given number series is based on the following pattern:
 $48 \div 2 = 24$
 $24 \times 4 = 96$
 $96 \div 2 = 48$
 $48 \times 4 = 192$
 $192 \div 2 = 96$

14. The series given above is a combination of two series:
First Series: 4, 12, 28, ?
Second Series: 6, 14, 30, ...
The pattern followed in each of the series is given by $+8, +16, +32, \dots$
Hence, the missing number = $(28 + 32) = 60$
The answer is 60.

15. The pattern is $+4, +8, +12, +16, \dots$
So, missing term = $41 + 20 = 61$.

16. The given series consists of numbers each of which, on dividing by 7, leaves a remainder 3. No other number except 346 satisfies the property.

17. $8 \times 2 + 1 = 17$
 $17 \times 2 + 2 = 36$
 $36 \times 2 + 3 = 75$
 $75 \times 2 + 4 = 154$

18. $1 + 3 = 4, 3 + 4 = 7;$
 $4 + 7 = 11;$
 $7 + 11 = 18$

19. $118 + 64 = 182$ and
 $182 + 4 = 186$
 $186 + 36 = 222$ and
 $222 + 4 = 226$

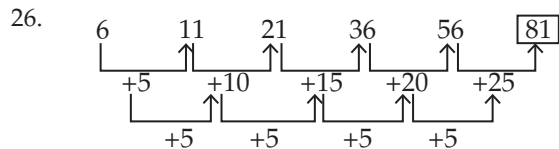
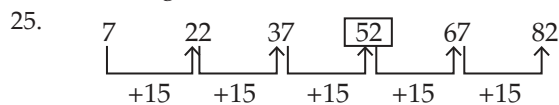
20. This series is a combination of the two following series:
First Series: 1, 3, 7, ?, 21
Second Series: 3, 6, 9, 12
Pattern in First Series: $+2, +4, \dots$
Pattern in Second Series: $+3$
Hence, the missing number = $(7 + 6) = 13$
The answer is 13.

21. The terms except the first two terms is the sum of the preceding two terms in the given series.
Hence, the missing term = $16 + 25 = 41$

22. The given number series is based on the following pattern:
 $10 + 90 = 100$
 $100 + (90 + 10) = 200$
 $200 + (90 + 20) = 310$
 $310 + (90 + 30) = 430$

23. $5 + 4 = 9;$
 $9 + 4 = 13;$
 $13 + 4 = 17$
 $17 + 4 = 21$
 $21 + 4 = 25$

24. The pattern is $\div 1, \div 2, \div 3, \div 4, \div 5$.
So, missing term = $240 \div 1 = 240$



27. The pattern is $+100, +110, +120, +130, \dots$
So, missing term = $430 + 130 = 560$.

28. The given number series is based on the following pattern:
 $3 + 7 = 10; 10 + 10 = 20$
 $20 + 13 = 33; 33 + 16 = 49$
 $49 + 19 = 68; 68 + 22 = 90$

29. The given series is a combination of the following three series.
Series I: 1st, 4th, 7th, 10th, 13th terms i.e., 2, 4, 6, 8, ?
Series II: 2nd, 5th, 8th, 11th terms i.e., 1, 4, 7, 10
Series III: 3rd, 6th, 9th, 12th terms i.e., 2, 5, 8, 11
Clearly, the first term consists of consecutive even numbers. Hence, the missing term is 10.

30. $4/12/95$ to $1/1/96 = 28$ days
 $1/1/96$ to $29/1/96 = 28$ days
 $29/1/96$ to $26/2/96 = 28$ days
 $26/2/96$ to $25/3/96 = 28$ days

Remember: 1996 was a leap year and hence the month of February contained 29 days.

31. Clearly, $2 \times 3 = 6, 6 \times 3 = 18, 18 \times 3 = 54, \dots$
So the series is a GP in which $a = 2, r = 3$
 \therefore 8th term = $ar^{8-1} = ar^7$
 $= 2 \times 3^7 = 2 \times 2187 = 4374$

32. The given number series is based on the following pattern:

$$15 \times 2 + 1 = 31$$

$$31 \times 2 + 2 = 64$$

$$64 \times 2 + 3 = 131$$

$$131 \times 2 + 4 = 266$$

33. The given number series is based on the following pattern:

$$3 \times 3 + 1 = 10$$

$$10 \times 10 + 1 = 101$$

$$101 \times 101 + 1 = 10202$$

34. The terms of the given series are numbers formed by joining together consecutive odd numbers in order i.e. 1 and 3, 3 and 5, 5 and 7, 7 and 9, 9 and 11,
So, missing term = number formed by joining 11 and 13 = 1113.

35. $77 + 2 = 79$ & $14 + 2 = 16$

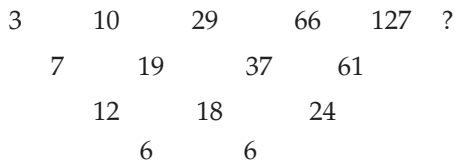
Similarly,
 $81 + 2 = 83$ & $09 + 2 = 11$
 $\therefore ? = 8311$

36. Each term in the series is obtained by subtracting from the preceding term the number formed by the first three digits of the previous terms.

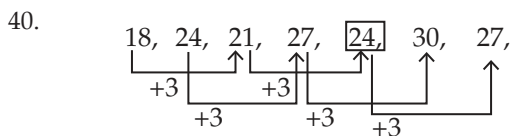
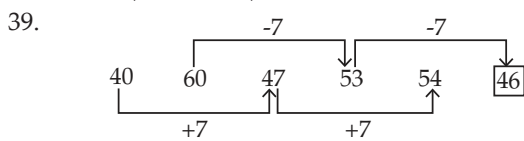
So, missing term $5242 - 524 = 4718$.

37. $6 + 4 = 10$,
 $10 + (4 \times 2) = 18$,
 $18 + (8 \times 2) = 34$
 $34 + (16 \times 2) = 66$

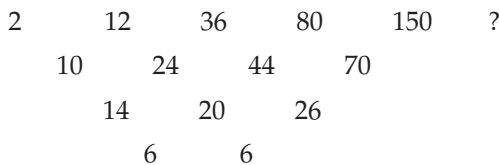
38. The series given above is a triangular pattern series. So, we have



Hence, the missing term
 $= 127 + (61 + 24 + 6) = 127 + 91 = 218$



41. The series given above is a triangular pattern series. So, we have



Hence, the missing term $= 150 + (70 + 26 + 6) = 150 + 102 = 252$

42. The pattern is $+ 3, + 6, + 12, + 24, \dots$

So, missing term $= 46 + 48 = 94$.

43. $4 \times 2 = 8$

$$8 \times \frac{3}{2} = 12$$

$$12 \times 2 = 24$$

$$24 \times \frac{3}{2} = 36$$

$$36 \times 2 = 72$$

44. The pattern followed is:

$$n^{\text{th}} \text{ term} + (n + 1)^{\text{th}} \text{ term} (n + 1) = (n + 2)^{\text{th}} \text{ term.}$$

Thus, 1st term + 2nd term + 2 = 3rd term;

2nd term + 3rd term + 3 = 4th term and so on.

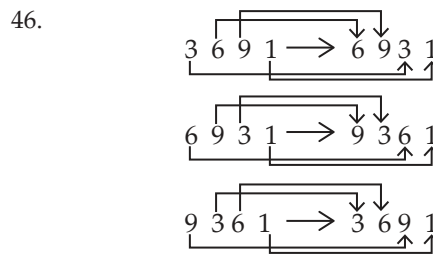
So, missing term = 6th term = 4th term + 5th term + 5 = 24 + 41 + 5 = 70.

45. $(3)^3 + 1 = 28$

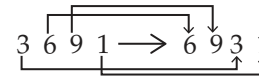
$$(4)^3 + 1 = 65$$

$$(5)^3 + 1 = 126$$

$$(6)^3 + 1 = 217$$



Therefore,



47. The given series consists of cubes of natural numbers only. 256 is not the cube of any natural number.

48. The given series consists of squares of consecutive odd numbers i.e. $1^2, 3^2, 5^2, 7^2, \dots$

So, missing term $= 9^2 = 81$.

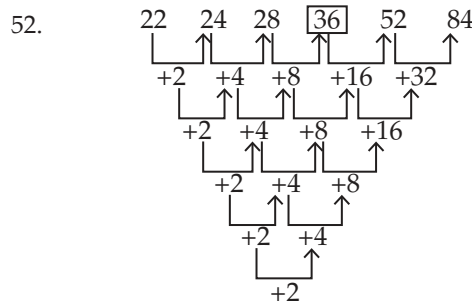
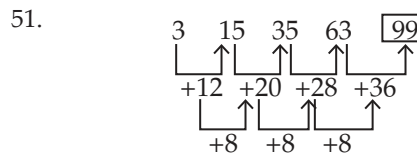
49. Here the respective difference between the terms is as follows -

2, 4, 6, 8,

Therefore, $12 + 8 = 20$ which is the required term.

50. Here the respective difference between the term is as follows 2, 4, 8, 16, 32, 64,

Therefore, the required term will be $67 + 64 = 131$

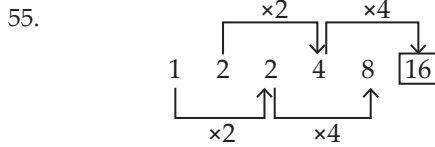
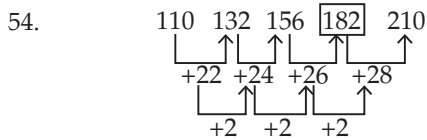


53. Clearly, $3 + 6 = 9, 9 + 6 = 15, \dots$

So, the given series is an AP in which $a = 3$ and $d = 6$

Therefore, 21st term $= a + (21 - 1)d = a + 20d$

$$= 3 + 20 \times 6 = 123$$



56. Here, the respective difference between terms is as follows:

5, 10, 20, 25.....

As, $7 + 5 = 12$

$12 + 10 = 22$

$22 + 15 = 37$

\therefore Therefore, the next term will be
 $= 37 + 20 = 57$

57. Here the series is as follows:

$1^2 - 2 = -1, 4^2 - 2 = 14$

$2^2 - 2 = 2, 5^2 - 2 = 23$

$3^2 - 2 = 7, 6^2 - 2 = 34$

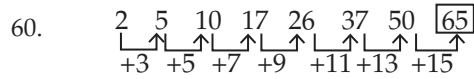
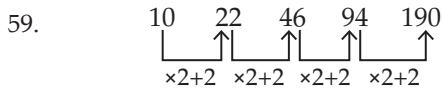
58. The given number series is based on the following pattern:

$3 \times 2 + 1 = 7$

$7 \times 3 + 2 = 23$

$23 \times 4 + 3 = 95$

$95 \times 5 + 4 = 479$



61. The given number series is based on the following pattern:

$2 \times 2 + 1 = 5$

$5 \times 2 - 1 = 9$

$9 \times 2 + 1 = 19$

$19 \times 2 - 1 = 37$

$37 \times 2 + 1 = 75$

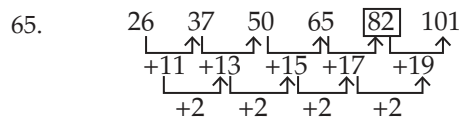
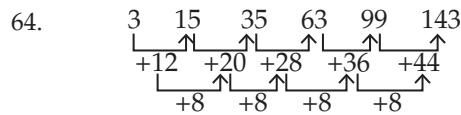
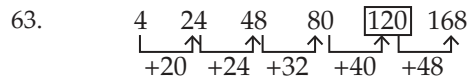
62. $4 + 3 = 7$

$7 + 3 = 10$

$10 + 7 = 17$

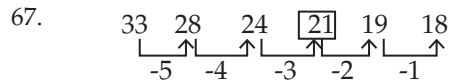
$17 + 10 = 27$

$27 + 17 = \boxed{44}$



66. The pattern is $+ 8, + 10, + 12, + 14, \dots$

So, missing term $= 70 + 18 = 88$.



PRACTICE QUESTIONS - 3

In the following number series, either one term is missing or is wrong, which has been given as one of the four alternatives under it. Mark your answer.

1. (2), 5, (12), 25, 41, 61

- (a) Both the bracketed terms are right
- (b) The first bracketed term is right and second is wrong
- (c) The first bracketed term is wrong and second is right
- (d) Both the bracketed terms are wrong

2. Which is the wrong term in the series?

25, 36, 49, 81, 121, 169, 225

- (a) 36
- (b) 121
- (c) 49
- (d) 81

3. In the following number series, two terms have been put within brackets. Mark your answer.

4, 6, 10, (12), 16, (14), 22

- (a) Both the bracketed terms are right
- (b) The first bracketed term is right and second is wrong
- (c) The first bracketed term is wrong and second is right
- (d) Both the bracketed terms are wrong

4. Find the wrong number in the given series. 8, 16, 24, 40, 62, 104, 168

(a) 24

(b) 40

(c) 62

(d) 104

5. In the following question, one term in the number series is wrong. Find out the wrong term.

93, 309, 434, 498, 521, 533

- (a) 309
- (b) 434
- (c) 498
- (d) 521

6. In the following number series, either one term is missing or is wrong, which has been given as one of the four alternatives under it. This alternative is your answer.

1, 5, 14, 30, 55, 93

- (a) 97
- (b) 95
- (c) 93
- (d) 55

7. In the following question, one term in the number series is wrong. Find out the wrong term.

3, 7, 15, 39, 63, 127, 255, 511

- (a) 15
- (b) 39
- (c) 63
- (d) 127

8. In the following number series, either one term is missing or it's wrong, which has been given as one of

- the four alternatives under it. Choose the right answer from the given alternatives.
3, 3, 6, 9, 15, 39
(a) 24 (b) 25
(c) 29 (d) 34
9. How many times is 9 preceded by either 6 or 1 and followed by either 5 or 8 in the following series?
895176982198435913695
(a) 1 (b) 2
(c) 3 (d) 4
10. In the following question, one term in the number series is wrong. Find out the wrong term.
4, 10, 22, 46, 96, 190, 382
(a) 4 (b) 10
(c) 96 (d) 382
11. Find the wrong number in the given series. 13, 24, 29, 39, 44, 54, 61, 69
(a) 61 (b) 13
(c) 44 (d) 24
12. In the following number series, two terms have been put within brackets. Mark your answer.
4, 7, (9), 10, 13, 15, (16), 19
(a) Both the bracketed terms are right
(b) The first bracketed term is right and second is wrong
(c) The first bracketed term is wrong and second is right
(d) Both the bracketed terms are wrong
13. In the following question, one term in the number series is wrong. Find out the wrong term.
121, 143, 165, 186, 209
(a) 143 (b) 165
(c) 186 (d) 209
14. Find out the odd/wrong number in the given series:
62, 46, 34, 24, 16, 10
(a) 62 (b) 46
(c) 34 (d) 24
15. In the following number series, two terms have been put within brackets. Mark your answer.
2, 3, (6), 11, 18, (30), 38
(a) Both the bracketed terms are right
(b) The first bracketed term is right and second is wrong
(c) The first bracketed term is wrong and second is right
(d) Both the bracketed terms are wrong.
16. Find the wrong number in the given series: 6, 14, 31, 64, 137, 280
(a) 31 (b) 64
(c) 137 (d) 280
17. In the following number series, either one term is missing or is wrong, which has been given as one of the four alternatives under it. This alternative is your answer.
2, 3, 5, 8, 13, 34
(a) 21 (b) 25
(c) 29 (d) 34
18. Find the wrong number in the series:
7, 28, 63, 124, 215, 342, 511
(a) 7 (b) 28
(c) 124 (d) 215
19. In the following question, one term in the number series is wrong. Find out the wrong term.
1, 2, 4, 8, 16, 32, 64, 96
(a) 4 (b) 32
(c) 64 (d) 96
20. In the following number series, either one term is missing or is wrong, which has been given as one of the four alternatives under it. This alternative is your answer.
1, 5, 11, 19, 29, 55
(a) 55 (b) 41
(c) 29 (d) 19
21. Find the wrong number in the following series:
69, 55, 26, 13, 5
(a) 5 (b) 13
(c) 26 (d) 55
22. In the following question, one term in the number series is wrong. Find out the wrong term.
125, 126, 124, 127, 123, 129
(a) 126 (b) 124
(c) 123 (d) 129
23. In the following question, one term in the number series is wrong. Find out the wrong term.
2, 5, 10, 17, 26, 37, 50, 64
(a) 17 (b) 26
(c) 37 (d) 64
24. In the following number series, either one term is missing or is wrong, which has been given as one of the four alternatives under it. This alternative is your answer.
1, 2, 5, 10, 17, 28
(a) 30 (b) 28
(c) 27 (d) 17
25. Which number is wrong in the series?
5, 11, 23, 47, 96
(a) 47 (b) 23
(c) 96 (d) 11
26. In the following question, one term in the number series is wrong. Find out the wrong term.
1, 5, 5, 9, 7, 11, 11, 15, 12, 17
(a) 11 (b) 12
(c) 17 (d) 15
27. In the following question, one term in the number series is wrong. Find out the wrong term.
325, 259, 202, 160, 127, 105, 94
(a) 94 (b) 127
(c) 202 (d) 259
28. In the following number series, two terms have been put within brackets. Mark your answer.
3, 10, 29, (66), (127), 218
(a) Both the bracketed terms are right
(b) The first bracketed term is right and second is wrong
(c) The first bracketed term is wrong and second is right
(d) Both the bracketed terms are wrong

29. In the following questions, one term in the number series is wrong. Find out the wrong term.
10, 26, 74, 218, 654, 1946, 5834
(a) 26 (b) 74
(c) 218 (d) 654
30. Find the wrong number in the given series. 20, 40, 200, 400, 2000, 4000, 8000
(a) 200 (b) 2000
(c) 8000 (d) 4000
31. Find the wrong number in the series
3, 8, 15, 24, 34, 48, 63
(a) 15 (b) 24
(c) 34 (d) 48
32. Find out the wrong number in the sequence
102, 101, 98, 93, 86, 74, 66, 53
(a) 101 (b) 66
(c) 74 (d) 93

ANSWER KEY

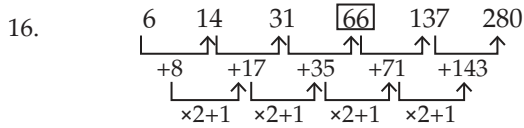
1. (d)	2. (a)	3. (b)	4. (c)	5. (d)	6. (c)	7. (b)	8. (a)	9. (c)	10. (c)
11. (c)	12. (a)	13. (c)	14. (a)	15. (b)	16. (b)	17. (a)	18. (b)	19. (d)	20. (b)
21. (a)	22. (d)	23. (d)	24. (b)	25. (c)	26. (b)	27. (c)	28. (a)	29. (d)	30. (c)
31. (c)	32. (c)								

EXPLANATIONS

1. The correct pattern is + 4, + 8, + 12, + 16, + 20.
Clearly, 2 is wrong and must be replaced by (5-1) i.e. 4.
Also, 12 is wrong and must be replaced by (5 + 8) i.e. 13.
Hence, both the bracketed terms (2) and (12) are wrong
2. Except 36, all others are perfect squares of odd numbers.
25 = 5 × 5; 49 = 7 × 7;
81 = 9 × 9; 121 = 11 × 11
169 = 13 × 13;
225 = 15 × 15
But, 36 = 6 × 6
3. The correct pattern is + 2, + 4, + 2, + 4, ...
Clearly, the term 12 is correct.
But, 14 is wrong and must be replaced by (16 + 2) i.e. 18.
Hence, the first bracketed term (12) is right and second one (14) is wrong
4. 8 + 8 = 16;
16 + 8 = 24;
24 + 16 = 40;
40 + 32 = 72;
72 + 32 = 104;
104 + 64 = 168
Therefore, the number 62 is wrong in the series.
5. The correct pattern is + 6³, + 5³, + 4³, + 3³, ...
So, 521 is wrong and must be replaced by (498 + 3³) i.e. 525.
6. The correct pattern is + 4, + 9, + 16, + 25, + 35 i.e. + 2², + 3², + 4², + 5², + 6².
So, 93 is wrong and must be replaced by (55 + 36) i.e. 91.
7. The correct pattern is × 2 + 1.
So, 39 is wrong and must be replaced by (15 × 2 + 2) i.e. 31.
8. Each term in the series is the sum of the preceding two terms
Now, 9 + 15 = 24 and 15 + 24 = 39
Hence, the term 24 is missing in the series
9. 895176982198435913695

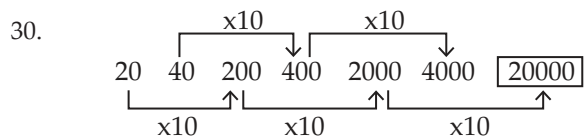
$$\begin{array}{cccccccc} \boxed{6/1} & \boxed{9} & \boxed{5/8} & & & & & \\ 89517 & \boxed{698} & 2 & \boxed{198} & 435913 & & & \\ & \boxed{695} & & & & & & \end{array}$$
- Hence, 9 is preceded by either 6 or 1 and followed by either 5 or 8 in three terms.
10. The correct pattern is
+ 6, + 12, + 24, + 48, + 96, + 192.
So, 96 is wrong and must be replaced by (46 + 48) i.e. 94.
11.
$$\begin{array}{cccccccc} & & +15 & & +15 & & +15 & \\ & & \downarrow & & \downarrow & & \downarrow & \\ 13 & 24 & 29 & 39 & \boxed{45} & 54 & 61 & 69 \\ & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \\ & +16 & +16 & +16 & +16 & +16 & +16 & \end{array}$$
12. The correct pattern is
+ 3, + 2, + 1, + 3, + 2, + 1, + 3.
Clearly, both the terms 9 and 16 are correct.
13. Each term in the series is obtained by adding 22 to the preceding term.
So, 186 is wrong and must be replaced by (165 + 22) i.e. 187.
14. 60 - 14 = 46
46 - 12 = 34
34 - 10 = 24
24 - 8 = 16
16 - 6 = 10
Therefore, the number 62 is wrong in the series.

15. The correct pattern is
 $+1, +3, +5, +7, +9, +11$.
 Clearly, the term 6 is correct.
 But, 30 is wrong and must be replaced by $(18 + 9)$ i.e. 27.
 Hence, the first bracketed term (6) is right and the second one (30) is wrong



- Therefore, the number 64 is wrong in the series.
17. Clearly, each term of the series is the sum of the preceding two terms.
 Now, $8 + 13 = 21$ and $13 + 21 = 34$.
 So, the term 21 is missing.
18. The correct sequence is :
 $2^3 - 1, 3^3 - 1, 4^3 - 1, 5^3 - 1, 6^3 - 1, 7^3 - 1, 8^3 - 1$
 So, 28 is the wrong term and it should be replaced by $(3^3 - 1)$ i.e., 26
 Hence, the wrong term is 28.
19. Each term of the series is obtained by multiplying the preceding term by 2.
 So, 96 is wrong and must be replaced by 64×2 i.e. 128.
20. The correct sequence is $+4, +6, +8, +10, \dots$
 So, next term after $29 = 29 + 12 = 41$.
 The term after 41 will then be $(41 + 14)$ i.e. 55.
 $\therefore 41$ is missing
21. In the given series, each term is one more than the product of the digits of the preceding term. Thus,
 $(6 \times 9) + 1 = 55, (5 \times 5) + 1 = 26, (2 \times 6) + 1 = 13$
 Hence, the term '5' is the wrong term and it must be replaced by the term $(1 \times 3) + 1$ i.e., 4
 Hence, the wrong term in the series is 5.
22. The correct pattern is $+1, -2, +3, -4, +5$.
 So, 129 is wrong and must be replaced by $(123 + 5)$ i.e. 128.
23. The terms of the series are
 $(1^2 + 1), (2^2 + 1), (3^2 + 1), (4^2 + 1), (5^2 + 1), (6^2 + 1), (7^2 + 1), \dots$

- So, 64 is wrong and must be replaced by $(8^2 + 1)$ i.e. 65.
24. The correct sequence is $+1, +3, +5, +7, +9$.
 So, 28 is wrong and must be replaced by $(17 + 9)$ i.e. 26.
25. $5 \times 2 + 1 = 11$
 $11 \times 2 + 1 = 23$
 $23 \times 2 + 1 = 47$
 $47 \times 2 + 1 = 95$
 Therefore, the number 96 is wrong in the series.
26. The given sequence is a combination of two series:
 I. 1, 5, 7, 11, 12 and II. 5, 9, 11, 15, 17
 The pattern in both I and II is $+4, +2, +4, +2$.
 So, 12 is wrong and must be replaced by $(11 + 2)$ i.e. 13.
27. The correct pattern is
 $-66, -55, -44, -33, -22, -11$.
 So, 202 is wrong and must be replaced by $(259 - 55)$ i.e. 204.
28. The sequence is
 $1^3 + 2, 2^3 + 2, 3^3 + 2, 4^3 + 2, 5^3 + 2, 6^3 + 2$.
 Clearly, both the terms of 66 and 127 are correct.
29. The correct pattern is $\times 3 - 4$.
 So, 654 is wrong and must be replaced by $(218 \times 3 - 4)$ i.e. 650.



- Therefore, the number 8000 is wrong in the series.
31. The difference between the consecutive terms of the given series are respectively 5, 7, 9, 11, 13 and 15.
 Clearly, 34 is the wrong number and it must be replaced by $(24 + 11)$ i.e., 35
32. $102 - 1 = 101$
 $101 - 3 = 98$
 $98 - 5 = 93$
 $93 - 7 = 86$
 $86 - 9 = 77$
 $77 - 11 = 66$
 $66 - 13 = 53$
 74 is wrong, it must be replaced by 77.

PRACTICE QUESTIONS - 4

1. The number of letters skipped between adjacent letters in the series decreases from 5 to 1. Which of the following series does not observe the rule given above?
 (a) ZTOKHF (b) OIDZWU
 (c) QKFCYW (d) WQLHEC
2. In the following, 5 letters have been skipped between two letters. Which of the following observes the rule given above?
 (a) RXD (b) ABE
 (c) PQT (d) LMQ
3. In the following question, number of letters are skipped in between by a particular rule. Which of the following series observes the rule?
 (a) ACFGJK (b) ACFJOU
 (c) MPQSTV (d) ADFHJL
4. The number of letters skipped in between two adjacent letters in this series increases by multiples of 2. Which of the following series does not observe the rule given above?
 (a) ADIPY (b) JMRYG
 (c) EHMTTC (d) HKPWF

5. In the following question, the number of letters skipped in between adjacent letters in the series is successive even numbers. Which of the following series observes this rule?
 (a) ADGJM (b) BEJQZ
 (c) BDGKQ (d) FINUZ
6. In the following question, number of letters skipped in between adjacent letters of the series starting from behind increased by one. Which of the following observes the rule?
 (a) ONLKJ (b) OMJFA
 (c) OIGDC (d) OMKIG
7. In the following question, number of letters skipped in between adjacent letters in the series decreases one each time. Which of the following series observes the rule?
 (a) MSYBG (b) IMTXB
 (c) BHNSV (d) TZEIL
8. The number of letters skipped in between adjacent letters in a series is 5. Which of the following series observes this rule?
 (a) CIOUA (b) CINUA
 (c) CIOTA (d) CIOUZ
9. In the following question, a letter-number series is given with one or more terms missing as shown by (?). Choose the missing term out of the given alternatives.
 Q1F, S2E, U6D, W21C, ?
 (a) Y44B (b) Y66B
 (c) Y88B (d) Z88B
10. Number of letters skipped in between adjacent letters goes on increasing successively by one in the series. Identify the set following the above rule.
 (a) AEIMQU (b) EHKNQT
 (c) DINSXC (d) FHKOTZ
11. The number of letters missed is not uniform. Which of the following series observes the above rule?
 (a) MORTXY (b) PRTVXZ
 (c) DGJMPS (d) BFJNRV
12. In the following question, number of letters skipped in between adjacent letters is increased by one. Which of the following letter series observes the rule?
 (a) KILMOPQ (b) NOPRQST
 (c) BEINTAI (d) CDEHGFI
13. In the following question, a letter-number series is given with one or more terms missing as shown by (?). Choose the missing term out of the given alternatives.
 2Z5, 7Y7, 14X9, 23W11, 34V13, ?
 (a) 27U24 (b) 45U15
 (c) 47U15 (d) 47V14
14. In one of the series of letters given below adjacent letters are skipped in a decreasing order. Which one of the following series observes the rule given above?
 (a) B _ H _ K _ I _ S (b) A _ G _ K _ N _ P
 (c) N _ P _ H _ J _ C (d) C _ J _ G _ T _ U
15. In the following question, number of letters are skipped in between by a particular rule. Which of the following observes the rule?
 (a) ACZXFQ (b) CFXURI
 (c) CFIURX (d) CXFUIR
16. The letters in BYDWFU have been grouped according to a rule. Which of the following follows this rule?
 (a) AZCXDV (b) AZCYDW
 (c) GTIRKP (d) GTIRKL
17. Number of letters skipped in between adjacent letters in the series increases by one every time. Which of the following series observes this rule?
 (a) ACFKO (b) DGKPV
 (c) DBKAM (d) QSVXZ
18. In the following letter series, the number of letters skipped between adjacent letters in the series increases by one. Which of the following series observes the rule?
 (a) GKMOYB (b) HJMQVBI
 (c) HLOSVYA (d) JKVYBMO
19. Number of letters skipped in between adjacent letters in the series increases by one. Which of the following series observes the rule above?
 (a) CPTOV (b) HJHQV
 (c) HCFKP (d) IKNRW
20. 3F, 6G, 11I, 18L, ?
 (a) 210 (b) 25N
 (c) 25P (d) 27P
 (e) 27Q
21. In the following question the letter sequence is formed by skipping 3 letters in the backward direction from the starting letter. Which one of the following alternatives has been formed using the above principle?
 (a) GCYU (b) MQUY
 (c) VSPM (d) PLIE
22. In the following question, increasing number of letters are skipped in between adjacent letters in a series. Which of the following series fulfils this rule?
 (a) BGMTA (b) BGMSZ
 (c) BGMTB (d) BGLRY
23. Number of letters skipped in between adjacent letters in the series increases by one. Which of the following series observe the ruling given above?
 (a) CEHLQW (b) CLOUBK
 (c) CHMRWB (d) HLPXTN
24. The number of letters skipped in between adjacent letters in the series is increased by one each time. Which of the following series observes the rule?
 (a) ADHMS (b) HKOSV
 (c) GJNSX (d) FLQUX
25. Find the term which does not fit into the series:
 1CV, 5FU, 9IT, 15LS, 17OR
 (a) 5FU (b) 15LS
 (c) 9IT (d) 17OR
- Directions (26-27):** In the following series the number of letters skipped in between the adjacent letters in the series is the same. Which of the following series observes the given rule?
 26. (a) URNJ (b) ZVRO
 (c) HDAW (d) CYUQ

27. (a) TSWVZA (b) TSWVZY
(c) HILKON (d) POSRUV
28. In the following question, number of letters are skipped in between by a particular rule. Which of the following series observes the rule?
(a) AEJOTY (b) AFKPUZ
(c) AFKPTY (d) AEINRV
29. In the following question number of letters skipped in between adjacent letters in the series increased by one. Which of the following series observe the rule?
(a) KORYBGJ (b) LMEYTPK
(c) KMPTYEL (d) KPTYELM
30. In the following question, a letter-number series is given with one or more terms missing as shown by (?). Choose the missing term out of the given alternatives.
J2Z, K4X, I7V, ?, H16R, M22P
(a) I11T (b) L11S
(c) L12T (d) L11T
(e) L12S
31. In the following question number of letters skipped in between adjacent letters in the series is increased by one. Which of the following series observes the rule?
(a) B F I L Q (b) E I N T A
(c) D H K P V (d) A D H K M
32. In the following question, numbers of letters skipped in reverse order in between adjacent letters in the series is constant. Which of the following series observe this rule?
(a) SPMJG (b) SQOLJ
(c) SPNLJ (d) WUTRQ
33. The number of letters skipped in between adjacent letters in the series decreases by one each time. Which of the following series observes the rule?
(a) CGKOS (b) DHLPT
(c) EJNQS (d) BFJNR
34. In each of the following questions, a letter-number series is given with one or more terms missing as shown by (?). Choose the missing term out of the given alternatives.
N5V, K7T, ?, E14P, B19N
(a) H9R (b) H10Q
(c) H10R (d) 110R
35. In the given question the letter sequence is formed by skipping 3 letters in the forward direction. Identify from the following alternatives which one of them cannot be formed using the above principle.
(a) GKOS (b) TXBF
(c) MPSW (d) AEIM
36. In the following question the number of letters skipped in between the adjacent letters in the series is constant. Which of the following series observe the given rule?
(a) k m p q r (b) h j l m o
(c) p r s u w (d) e g i k m
37. The number of letters skipped in between adjacent letters in the series is decreased by one. Which of the following series observes the rule?
(a) DJOTV (b) DJOSV
(c) DJOSW (d) DIOSU

Directions (Qs. 38-39): In each of the following questions, a letter-number series is given with one or more terms missing as shown by (?). Choose the missing term out of the given alternatives.

38. 2, A, 9, B, 6, C, 13, D, ?
(a) 9 (b) 10
(c) 12 (d) 19
39. D-4, F-6, H-8, J-10, ?, ?
(a) K-12, M-13 (b) L-12, M-14
(c) L-12, N-14 (d) K-12, M-14
40. In question, number of letters skipped in between adjacent letters in the series is increased by one. Which of the following series observes the rule?
(a) ACFJN (b) ACFJO
(c) ADFJO (d) ACFKO

Directions (Qs. 41-42): In the following questions number of letters are skipped in between by a particular rule. Which of the following series observes the rule?

41. (a) ZXTNCD (b) MNXYPQ
(c) PRTVXZ (d) RSABLM
42. (a) RTVYZAC (b) KMORTUW
(c) SUWYACE (d) OWZDIOV
43. In the following question, a letter-number series is given with one or more terms missing as shown by (?). Choose the missing term out of the given alternatives.
2A11, 4D13, 12G17, ?
(a) 36I19 (b) 36J21
(c) 48J21 (d) 48J23
44. Number of letters skipped in between adjacent letters in the series increases by one. Which of the following series observe the ruling?
(a) ACFJNS (b) EGJNSY
(c) CEHLPS (d) KNQTW
45. In the following question, a letter has been skipped after every letter. Which of the following series observes the rule given above?
(a) A B C D E F (b) L M N O P Q
(c) A C E G I K (d) G H I J K L
46. In the following question, a letter-number series is given with one or more terms missing as shown by (?). Choose the missing term out of the given alternatives.
2B, 4C, 8E, 14H, ?
(a) 16K (b) 20I
(c) 20L (d) 22L
47. Number of letters skipped in between adjacent letters in the series increases by one. Which of the following series observe this rule?
(a) WBKQXYF (b) WYBFKQX
(c) YBQQFHN (d) WZCHJMQ
48. In the following question, a letter-number series is given with one or more terms missing as shown by (?). Choose the missing term out of the given alternatives.
W-1444, ?, 8-100, Q-81, O-64
(a) U-121 (b) U-122
(c) V-121 (d) V-128

49. In the following question letters are skipped between by following a particular rule. Which of the following series observes the rule?
 (a) BDFIJ (b) DGJLM
 (c) BDHPF (d) ACFHJ
50. In the following question, a letter-number series is given with one or more terms missing as shown by (?). Choose the missing term out of the given alternatives.
 KM5, IP8, GS11, EV14, ?
 (a) BX17 (b) BY17
 (c) CY17 (d) CY18
 (e) CZ17
51. In the following question, the number of letters skipped in between adjacent letters in the series is 5. Which of the following series observes this rule?

- (a) XDIPV (b) XDKPV
 (c) XDJOU (d) XDJPV
52. Number of letters skipped in between adjacent letters in the series increases by one. Which of the following series observe the ruling given below?
 (a) ACFJOU (b) JLNPOQ
 (c) ZXMKJL (d) KCAOPQ
53. How many such pairs of letters are there in the word RECOVERED, which have as many letters between them in the word as in the English alphabet?
 (a) Three (b) Four
 (c) Six (d) Five

ANSWER KEY

1. (c)	2. (a)	3. (b)	4. (b)	5. (b)	6. (b)	7. (d)	8. (a)	9. (c)	10. (d)
11. (a)	12. (c)	13. (c)	14. (b)	15. (d)	16. (c)	17. (b)	18. (b)	19. (d)	20. (d)
21. (a)	22. (c)	23. (a)	24. (b)	25. (b)	26. (d)	27. (b)	28. (b)	29. (c)	30. (d)
31. (b)	32. (a)	33. (c)	34. (c)	35. (c)	36. (d)	37. (b)	38. (b)	39. (c)	40. (b)
41. (c)	42. (c)	43. (d)	44. (b)	45. (c)	46. (d)	47. (b)	48. (a)	49. (c)	50. (c)
51. (d)	52. (a)	53. (b)							

EXPLANATIONS

1.
$$\begin{array}{ccccccccc} 26 & & 20 & & 15 & & 11 & & 8 & & 6 \\ Z & \xrightarrow{-6} & T & \xrightarrow{-5} & O & \xrightarrow{-4} & K & \xrightarrow{-3} & H & \xrightarrow{-2} & F \\ \downarrow & & \downarrow & & \downarrow & & \downarrow & & \downarrow & & \downarrow \\ \boxed{YXWVU} & & \boxed{SROP} & & \boxed{NML} & & \boxed{JI} & & \boxed{G} & & \\ 5 & & 4 & & 3 & & 2 & & 1 & & \end{array}$$
- $$\begin{array}{ccccccccc} 15 & & 9 & & 4 & & 26 & & 23 & & 21 \\ O & \xrightarrow{-6} & I & \xrightarrow{-5} & D & \xrightarrow{-4} & Z & \xrightarrow{-3} & W & \xrightarrow{-2} & U \\ \downarrow & & \downarrow & & \downarrow & & \downarrow & & \downarrow & & \downarrow \\ \boxed{NMLKJ} & & \boxed{HCFE} & & \boxed{CBA} & & \boxed{YX} & & \boxed{V} & & \\ 5 & & 4 & & 3 & & 2 & & 1 & & \end{array}$$
- $$\begin{array}{ccccccccc} 17 & & 11 & & 6 & & 3 & & 25 & & 23 \\ Q & \xrightarrow{-6} & K & \xrightarrow{-5} & F & \xrightarrow{-4} & C & \xrightarrow{-3} & Y & \xrightarrow{-2} & W \\ \downarrow & & \downarrow & & \downarrow & & \downarrow & & \downarrow & & \downarrow \\ \boxed{PONML} & & \boxed{JIHG} & & \boxed{ED} & & \boxed{BAZ} & & \boxed{X} & & \\ 5 & & 4 & & 2 & & 3 & & 1 & & \end{array}$$
- $$\begin{array}{ccccccccc} 23 & & 17 & & 12 & & 8 & & 5 & & 3 \\ W & \xrightarrow{-6} & Q & \xrightarrow{-5} & L & \xrightarrow{-4} & H & \xrightarrow{-3} & E & \xrightarrow{-2} & C \\ \downarrow & & \downarrow & & \downarrow & & \downarrow & & \downarrow & & \downarrow \\ \boxed{VUTSR} & & \boxed{PONM} & & \boxed{KJI} & & \boxed{GF} & & \boxed{D} & & \\ 5 & & 4 & & 3 & & 2 & & 1 & & \end{array}$$

QKFCYW doesn't observe the given rule.

2.
$$\begin{array}{ccc} 18 & 24 & 30(4) \\ R & X & D \\ \downarrow & \downarrow & \downarrow \\ & +6 & +6 \end{array}$$

3.
$$\begin{array}{ccccccccc} A & \xrightarrow{+1} & B & \xrightarrow{+4} & F & \xrightarrow{+1} & G & \xrightarrow{+3} & J & \xrightarrow{+1} & K \\ A & \xrightarrow{+2} & C & \xrightarrow{+3} & F & \xrightarrow{+4} & J & \xrightarrow{+5} & O & \xrightarrow{+6} & U \\ M & \xrightarrow{+3} & P & \xrightarrow{+1} & Q & \xrightarrow{+2} & S & \xrightarrow{+1} & T & \xrightarrow{+2} & V \\ A & \xrightarrow{+3} & D & \xrightarrow{+2} & F & \xrightarrow{+2} & H & \xrightarrow{+2} & J & \xrightarrow{+2} & L \end{array}$$

4.
$$\begin{array}{ccccccccc} 1 & & 4 & & 9 & & 16 & & 25 \\ A & \xrightarrow{+3} & D & \xrightarrow{+5} & I & \xrightarrow{+7} & P & \xrightarrow{+9} & Y \\ \downarrow & & \downarrow & & \downarrow & & \downarrow & & \downarrow \\ \boxed{BC} & & \boxed{EFGH} & & \boxed{JKLMNO} & & \boxed{QRSTUVWXYZ} & & \\ 2 \times 1 & & 2 \times 2 & & 2 \times 3 & & 2 \times 4 & & \end{array}$$
- $$\begin{array}{ccccccccc} 10 & & 13 & & 18 & & 25 & & 7(33) \\ J & \xrightarrow{+3} & M & \xrightarrow{+5} & R & \xrightarrow{+7} & Y & \xrightarrow{+9} & G \\ \downarrow & & \downarrow & & \downarrow & & \downarrow & & \downarrow \\ \boxed{KL} & & \boxed{NOPQ} & & \boxed{STUVWX} & & \boxed{ZABCDEFGHI} & & \\ 2 \times 1 & & 2 \times 2 & & 2 \times 3 & & 2 \times 4 & & \end{array}$$

JMRYG does not observe the rule.

5.
$$\begin{array}{ccccccccc} A & \xrightarrow{+3} & D & \xrightarrow{+3} & G & \xrightarrow{+3} & J & \xrightarrow{+3} & M \\ \downarrow & & \downarrow & & \downarrow & & \downarrow & & \downarrow \\ \boxed{BC} & & \boxed{EF} & & \boxed{HI} & & \boxed{KL} & & \end{array}$$

$$B \xrightarrow{+3} E \xrightarrow{+5} J \xrightarrow{+7} Q \xrightarrow{+9} Z$$

CD

FGHI

KLMNOP

RSTUVWXY

$$B \xrightarrow{+2} D \xrightarrow{+3} G \xrightarrow{+4} K \xrightarrow{+6} Z$$

C

EF

HIJ

LMNOP

$$F \xrightarrow{+3} I \xrightarrow{+5} N \xrightarrow{+7} U \xrightarrow{+5} Z$$

GH

JKLM

OPQRST

VWXY

BEJQZ observes this rule.

6. $O \xrightarrow{-1} N \xrightarrow{-2} L \xrightarrow{-1} K \xrightarrow{-1} J$
 $O \xrightarrow{-2} M \xrightarrow{-3} J \xrightarrow{-4} F \xrightarrow{-5} A$
 $O \xrightarrow{-6} I \xrightarrow{-2} G \xrightarrow{-3} D \xrightarrow{-1} C$
 $O \xrightarrow{-2} M \xrightarrow{-2} K \xrightarrow{-2} I \xrightarrow{-2} G$

7. $M \xrightarrow{+6} S \xrightarrow{+6} Y \xrightarrow{+3} B \xrightarrow{+5} G$
 $I \xrightarrow{+4} M \xrightarrow{+7} T \xrightarrow{+4} X \xrightarrow{+4} B$
 $B \xrightarrow{+6} H \xrightarrow{+6} N \xrightarrow{+5} S \xrightarrow{+3} V$
 $T \xrightarrow{+6} Z \xrightarrow{+5} E \xrightarrow{+4} I \xrightarrow{+3} L$

8. $C \xrightarrow{+6} I \xrightarrow{+6} O \xrightarrow{+6} U \xrightarrow{+6} A$
 $C \xrightarrow{+6} I \xrightarrow{+5} N \xrightarrow{+7} U \xrightarrow{+6} A$
 $C \xrightarrow{+6} I \xrightarrow{+6} O \xrightarrow{+5} T \xrightarrow{+7} A$
 $C \xrightarrow{+6} I \xrightarrow{+6} O \xrightarrow{+6} U \xrightarrow{+5} Z$

9. 1st number: $Q \xrightarrow{+2} S \xrightarrow{+2} U \xrightarrow{+2} W \xrightarrow{+2} Y$ (Y)

Middle letter: $1 \xrightarrow{\times 1+1} 2 \xrightarrow{\times 2+2} 6 \xrightarrow{\times 3+3} 21 \xrightarrow{\times 4+4} 88$ (88)

3rd number: $F \xrightarrow{-1} E \xrightarrow{-1} D \xrightarrow{-1} C \xrightarrow{-1} B$ (B)

10. a) $A \xrightarrow{+4} E \xrightarrow{+4} I \xrightarrow{+4} M \dots$
 b) $E \xrightarrow{+3} H \xrightarrow{+3} K \xrightarrow{+3} N \dots$
 c) $D \xrightarrow{+5} I \xrightarrow{+5} N \xrightarrow{+5} S \dots$
 d) $F \xrightarrow{+2} H \xrightarrow{+3} K \xrightarrow{+4} O \xrightarrow{+5} T \xrightarrow{+6} Z \dots$

11. $13 \xrightarrow{+2} 15 \xrightarrow{+3} 18 \xrightarrow{+2} 20 \xrightarrow{+4} 24 \xrightarrow{+1} 25$
 $M \xrightarrow{+2} O \xrightarrow{+3} R \xrightarrow{+2} T \xrightarrow{+4} X \xrightarrow{+1} Y$
 $16 \xrightarrow{+2} 18 \xrightarrow{+2} 20 \xrightarrow{+2} 22 \xrightarrow{+2} 24 \xrightarrow{+2} 26$
 $P \xrightarrow{+2} R \xrightarrow{+2} T \xrightarrow{+2} V \xrightarrow{+2} X \xrightarrow{+2} Z$
 $4 \xrightarrow{+3} 7 \xrightarrow{+3} 10 \xrightarrow{+3} 13 \xrightarrow{+3} 16 \xrightarrow{+3} 19$
 $D \xrightarrow{+3} G \xrightarrow{+3} J \xrightarrow{+3} M \xrightarrow{+3} P \xrightarrow{+3} S$
 $2 \xrightarrow{+4} 6 \xrightarrow{+4} 10 \xrightarrow{+4} 14 \xrightarrow{+4} 18 \xrightarrow{+4} 22$
 $B \xrightarrow{+4} F \xrightarrow{+4} J \xrightarrow{+4} N \xrightarrow{+4} R \xrightarrow{+4} V$

12. $K \xrightarrow{-2} I \xrightarrow{+3} L \xrightarrow{+1} M \xrightarrow{+2} O \xrightarrow{+1} P \xrightarrow{+1} Q$
 $N \xrightarrow{+1} O \xrightarrow{+1} P \xrightarrow{+2} R \xrightarrow{-1} Q \xrightarrow{+2} S \xrightarrow{+1} T$
 $B \xrightarrow{+3} E \xrightarrow{+4} I \xrightarrow{+5} N \xrightarrow{+6} T \xrightarrow{+7} A \xrightarrow{+8} I$
 $C \xrightarrow{+1} D \xrightarrow{+1} E \xrightarrow{+3} H \xrightarrow{-1} G \xrightarrow{-1} F \xrightarrow{+3} I$

13. 1st number:

1st number:

$2 \xrightarrow{+5} 7 \xrightarrow{+7} 14 \xrightarrow{+9} 23 \xrightarrow{+11} 34 \xrightarrow{+13} 47$ (47)

Middle letter:

$Z \xrightarrow{-1} Y \xrightarrow{-1} X \xrightarrow{-1} W \xrightarrow{-1} V \xrightarrow{-1} U$ (U)

3rd number:

$5 \xrightarrow{+2} 7 \xrightarrow{+2} 9 \xrightarrow{+2} 11 \xrightarrow{+2} 13 \xrightarrow{+2} 15$ (15)

14. $B \xrightarrow{+6} H \xrightarrow{+3} K \xrightarrow{-2} I \xrightarrow{+10} S$
 $A \xrightarrow{+6} G \xrightarrow{+4} K \xrightarrow{+3} N \xrightarrow{+2} P$
 $N \xrightarrow{+2} P \xrightarrow{-8} H \xrightarrow{+2} J \xrightarrow{-7} C$
 $C \xrightarrow{+7} J \xrightarrow{-3} G \xrightarrow{+13} T \xrightarrow{+1} U$

A _ G _ K _ N _ P observes the rule.

15. $A \xrightarrow{+2} C \xrightarrow{+23} Z \xrightarrow{-2} X \xrightarrow{-18} F \xrightarrow{+1} G$
 $C \xrightarrow{+3} F \xrightarrow{+18} X \xrightarrow{-3} U \xrightarrow{-3} R \xrightarrow{-9} I$
 $C \xrightarrow{+3} F \xrightarrow{+3} I \xrightarrow{+12} U \xrightarrow{-3} R \xrightarrow{+6} X$
 $C \xrightarrow{+21} X \xrightarrow{-18} F \xrightarrow{+15} U \xrightarrow{-12} I \xrightarrow{+9} R$

CXFUIR observes this rule which is decreased and increased by the order of 3 in an alternating order.

16. $B \xrightarrow{+2} D \xrightarrow{+2} F$
 $\uparrow \qquad \qquad \uparrow \qquad \qquad \uparrow$
 $\downarrow \xrightarrow{-2} \downarrow \xrightarrow{-2} \downarrow$
 $Y \xrightarrow{-2} W \xrightarrow{-2} U$

Similarly,

$G \xrightarrow{+2} I \xrightarrow{+2} K$
 $\uparrow \qquad \qquad \uparrow \qquad \qquad \uparrow$
 $\downarrow \xrightarrow{-2} \downarrow \xrightarrow{-2} \downarrow$
 $T \xrightarrow{-2} R \xrightarrow{-2} P$

17. $A \xrightarrow{+2} C \xrightarrow{+3} F \xrightarrow{+5} K \xrightarrow{+4} O$
 $D \xrightarrow{+3} G \xrightarrow{+4} K \xrightarrow{+5} P \xrightarrow{+6} V$
 $D \xrightarrow{-2} B \xrightarrow{+9} K \xrightarrow{-10} A \xrightarrow{+12} M$
 $Q \xrightarrow{+2} S \xrightarrow{+3} V \xrightarrow{+2} X \xrightarrow{+2} Z$

18. $8 \xrightarrow{+2} 10 \xrightarrow{+3} 13 \xrightarrow{+4} 17 \xrightarrow{+5} 22 \xrightarrow{+6} 2 \xrightarrow{+7} 9$
 $H \xrightarrow{+2} J \xrightarrow{+3} M \xrightarrow{+4} Q \xrightarrow{+5} V \xrightarrow{+6} B \xrightarrow{+7} I$

19. $C \xrightarrow{+13} P \xrightarrow{+4} T \xrightarrow{-5} O \xrightarrow{+7} V$
 $H \xrightarrow{+2} J \xrightarrow{-2} H \xrightarrow{+9} Q \xrightarrow{+5} V$
 $H \xrightarrow{-5} C \xrightarrow{+3} F \xrightarrow{+5} K \xrightarrow{+5} P$
 $I \xrightarrow{+2} K \xrightarrow{+3} N \xrightarrow{+4} R \xrightarrow{+5} W$

20. Number: $3 \xrightarrow{+3} 6 \xrightarrow{+5} 11 \xrightarrow{+7} 18 \xrightarrow{+9} 27$ (27)
 Letter: $F \xrightarrow{+1} G \xrightarrow{+2} I \xrightarrow{+3} L \xrightarrow{+4} P$ (P)

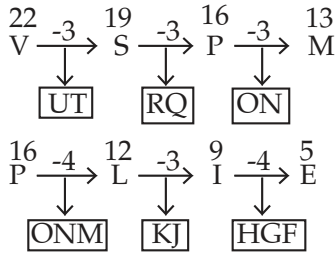
21. $7 \xrightarrow{-4} 3 \xrightarrow{-4} 25 \xrightarrow{-4} 21$
 $\downarrow \qquad \qquad \downarrow \qquad \qquad \downarrow$

FED

BAZ

XWV

 $13 \xrightarrow{-4} 17 \xrightarrow{-4} 21 \xrightarrow{-4} 25$
 $M \xrightarrow{-4} Q \xrightarrow{-4} U \xrightarrow{-4} Y$



GCYU has been formed using the above principle.

22. $B \xrightarrow{+5} G \xrightarrow{+6} M \xrightarrow{+7} T \xrightarrow{+7} A$
 $B \xrightarrow{+5} G \xrightarrow{+6} M \xrightarrow{+6} S \xrightarrow{+7} Z$
 $B \xrightarrow{+5} G \xrightarrow{+6} M \xrightarrow{+7} T \xrightarrow{+8} B$
 $B \xrightarrow{+5} G \xrightarrow{+5} L \xrightarrow{+6} R \xrightarrow{+7} Y$
23. $C \xrightarrow{+2} E \xrightarrow{+3} H \xrightarrow{+4} L \xrightarrow{+5} Q \xrightarrow{+6} W$
24. $A \xrightarrow{+3} D \xrightarrow{+4} H \xrightarrow{+5} M \xrightarrow{+6} S$
 $H \xrightarrow{+3} K \xrightarrow{+4} O \xrightarrow{+4} S \xrightarrow{+3} V$
 $G \xrightarrow{+3} J \xrightarrow{+4} N \xrightarrow{+5} S \xrightarrow{+5} X$
 $F \xrightarrow{+6} L \xrightarrow{+5} Q \xrightarrow{+4} U \xrightarrow{+3} X$

25. 1st number:

$$1 \xrightarrow{+4} 5 \xrightarrow{+4} 9 \xrightarrow{+4} \textcircled{13} \xrightarrow{+4} 17$$

2nd letter:

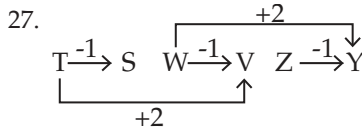
$$C \xrightarrow{+3} F \xrightarrow{+3} I \xrightarrow{+3} \textcircled{L} \xrightarrow{+3} O$$

3rd letter:

$$V \xrightarrow{-1} U \xrightarrow{-1} T \xrightarrow{-1} \textcircled{S} \xrightarrow{-1} R$$

Thus, the term 15LS is wrong and must be replaced by 13LS.

26. $C \xrightarrow{-4} Y \xrightarrow{-4} U \xrightarrow{-4} Q$



28. $A \xrightarrow{+4} E \xrightarrow{+5} J \xrightarrow{+5} O \xrightarrow{+5} T \xrightarrow{+5} Y$
 $A \xrightarrow{+5} F \xrightarrow{+5} K \xrightarrow{+5} P \xrightarrow{+5} U \xrightarrow{+5} Z$
 $A \xrightarrow{+5} F \xrightarrow{+5} K \xrightarrow{+5} P \xrightarrow{+5} T \xrightarrow{+5} Y$
 $A \xrightarrow{+4} E \xrightarrow{+4} I \xrightarrow{+5} N \xrightarrow{+4} R \xrightarrow{+4} V$

29. $K \xrightarrow{+4} O \xrightarrow{+3} R \xrightarrow{+7} Y \xrightarrow{+3} B \xrightarrow{+5} G \xrightarrow{+3} J$
 $L \xrightarrow{+1} M \xrightarrow{-8} E \xrightarrow{+20} Y \xrightarrow{-5} T \xrightarrow{-4} P \xrightarrow{-5} K$
 $K \xrightarrow{+2} M \xrightarrow{+3} P \xrightarrow{+4} T \xrightarrow{+5} Y \xrightarrow{+6} E \xrightarrow{+7} L$
 $K \xrightarrow{+5} P \xrightarrow{+4} T \xrightarrow{+5} Y \xrightarrow{+6} E \xrightarrow{+7} L \xrightarrow{+1} M$

30. The first letters in odd numbered terms from series.

$$J \xrightarrow{-1} I \xrightarrow{-1} H$$

and in even numbered terms form series .

$$K \xrightarrow{+1} \textcircled{L} \xrightarrow{+1} M$$

Middle number:

$$2 \xrightarrow{+2} 4 \xrightarrow{+3} 7 \xrightarrow{+4} \textcircled{11} \xrightarrow{+5} 16 \xrightarrow{+6} 22$$

3rd letter:

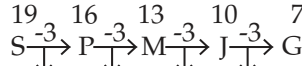
$$Z \xrightarrow{-2} X \xrightarrow{-2} V \xrightarrow{-2} \textcircled{T} \xrightarrow{-2} R \xrightarrow{-2} P$$

$$B \xrightarrow{+4} F \xrightarrow{+3} I \xrightarrow{+3} L \xrightarrow{+5} Q$$

$$E \xrightarrow{+4} I \xrightarrow{+5} N \xrightarrow{+6} T \xrightarrow{+7} A$$

$$D \xrightarrow{+4} H \xrightarrow{+3} K \xrightarrow{+5} P \xrightarrow{+6} V$$

31. $A \xrightarrow{+3} D \xrightarrow{+4} H \xrightarrow{+3} K \xrightarrow{+2} M$



32. $\boxed{RQ} \quad \boxed{ON} \quad \boxed{LK} \quad \boxed{IH}$

$$C \xrightarrow{+4} G \xrightarrow{+4} K \xrightarrow{+4} O \xrightarrow{+4} S$$

$$D \xrightarrow{+4} H \xrightarrow{+4} L \xrightarrow{+4} P \xrightarrow{+4} T$$

$$E \xrightarrow{+5} J \xrightarrow{+4} N \xrightarrow{+3} Q \xrightarrow{+2} S$$

33. $B \xrightarrow{+4} F \xrightarrow{+4} J \xrightarrow{+4} N \xrightarrow{+4} R$

34.

1st letter:

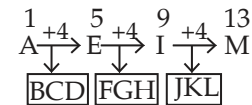
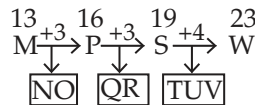
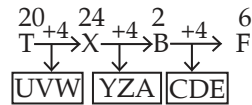
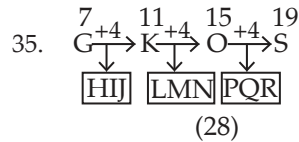
$$N \xrightarrow{-3} K \xrightarrow{-3} \textcircled{H} \xrightarrow{-3} E \xrightarrow{-3} B$$

Middle letter:

$$5 \xrightarrow{+2} 7 \xrightarrow{+3} \textcircled{10} \xrightarrow{+4} 14 \xrightarrow{+5} 19$$

2nd letter:

$$V \xrightarrow{-2} T \xrightarrow{-2} \textcircled{R} \xrightarrow{-2} P \xrightarrow{-2} N$$



36. $k \xrightarrow{+2} m \xrightarrow{+3} p \xrightarrow{+1} g \xrightarrow{+1} r$

$$8 \xrightarrow{+2} j \xrightarrow{+2} l \xrightarrow{+1} m \xrightarrow{+2} o$$

$$16 \xrightarrow{+2} r \xrightarrow{+1} s \xrightarrow{+2} u \xrightarrow{+2} w$$

$$5 \xrightarrow{+2} g \xrightarrow{+2} i \xrightarrow{+2} k \xrightarrow{+2} m$$

e.g. i k m observes the given rule.

PRACTICE QUESTIONS - 5

Directions: Which one set of letters when sequentially placed at the gaps in the given letter series shall complete it.?

1. b _ ac _ cc _ cb _ ab _ ac

- (a) cbaba (b) bbaac
(c) abbbc (d) aabba

2. D _ 6 E G P _ H J _ 12 K M B 15 _

- (a) E, 7, J, L (b) F, 8, M, K
(c) G, 9, I, M (d) J, 9, V, N

3. bab - b - b - - abb

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

4. aa _ aaa _ aaaa _ aaaa _ b

- (a) baaa (b) bbaa
(c) bbbb (d) bbba

5. a c b - c e - f -

- (a) dde (b) cde
(c) dee (d) ddg

6. - op - mo - n - - p n m o p -

- (a) mnompn (b) mnpomn
(c) mpnmop (d) mnpmon

7. a - n - b - - ncb - - ncb

- (a) bcabab (b) bacbab
(c) abcacb (d) abbbcc

8. - stt - tt - tts -

- (a) tsst (b) sstt
(c) ttst (d) tsts

9. - wi - - w - nt - in - wi -

- (a) nttwiwn (b) ttinwin
(c) tntiwn (d) tntwitn

10. aa-b-abc-ac-a-de

- (a) babcc (b) aaada
(c) abade (d) abaad

11. ccbab _ caa _ bccc _ a _

- (a) babb (b) bbba
(c) baab (d) babc

12. cccbb _ aa _ cc _ bbbaa _ c

- (a) acbc (b) baca
(c) baba (d) acba

13. a - bbc - aab - aa - abba -

- (a) cabaa (b) bacba
(c) bbaaa (d) aabba

14. ac - ga - eg - ce -

- (a) dbag (b) ecag
(c) deag (d) ebdg

15. nc - dcn - cddc - n - ddcnn - d

- (a) cdndc (b) dnncc
(c) dcndd (d) nccdn

16. _ a _ aaaba _ _ ba _ ab _

- (a) abaaaa (b) abaaba
(c) aababa (d) ababaa

17. a _ bc _ a _ bcda _ ccd _ bcd _

- (a) abddbd (b) acbdbb
(c) adbbad (d) adbcad

18. aba _ baca _ ba _ bacaabac _ aca

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

19. _ _ a a b _ a _ a _ b a

- (a) bbaab (b) aaabb
(c) ababa (d) babab

20. _ bcdbc _ dcabd _ bcdbc _ dc _ bd

- (a) aaaaa (b) ccccc
(c) bbbbb (d) dddddd

21. ca _ bd _ ec _ fd _ ge?

- (a) b, c, d, e (b) b, d, c, e
(c) b, c, e, d (d) d, b, c, e

22. aab _ aaa _ bba _

- (a) baa (b) abb
(c) bab (d) aab

23. bcde ebcd debc cdeb?

- (a) dcbe (b) bcde
(c) cdbce (d) dbce

24. b _ ccacca _ ba _ bbc _ bc _ a

- (a) baabc (b) abaaa
(c) acbca (d) bacab

25. F _ U 6 _ 9 I _ T 7 _ 20 _ 4 D 23

- (a) 11, G, 16, K, U (b) 13, H, 15, L, M
(c) 17, J, 19, R, S (d) 21, R, 18, G, W

26. a - ba - bb - ab - a

- (a) aabb (b) baaa
(c) abab (d) baab

27. ab-abc-bc-bca-c

- (a) caab (b) caac
(c) bccb (d) baca

28. a _ c _ abb _ a _ bc _ bc _ ab

- (a) cbcaaa (b) bcccab
(c) bccaac (d) acbabc

29. l-n-mll-m-n-l

- (a) m n m n (b) m n n m
(c) m n m m (d) n m m n

30. m - ommn - m - nommn - m.

- (a) onmo (b) nomo
(c) monm (d) nnmo

31. In the following series, choose the alternative which contains the numerals to be filled in the marked spaces, in the correct order:

B _ D _ C A B D A C B

_ 4 1 3 2 _ _ ? ? ? ?

a _ a _ b c _ c _ _ _ _

- (a) 1, 2, 3, 4 (b) 2, 3, 1, 4
(c) 1, 2, 4, 3 (d) 2, 1, 4, 3

32. ac__ cab __ baca __ aba__ acac
 (a) aacb (b) acbc
 (c) babb (d) babb
33. a—baa—aaba—ca—b
 (a) bcca (b) ccaa
 (c) acaa (d) abac
34. c __ bbb __ __ abbbb __ abbb__
 (a) aabcb (b) abccb
 (c) abacb (d) bacbb
35. ZX _ TR _ NLJ _ FD _
 (a) V P H B (b) V R H B
 (c) U P J B (d) U P J D
36. a e b d f j g i k o l n _
 (a) c m h (b) c h m
 (c) c g m (d) c j l
37. a __ cacbc __ baca __ __ b
 (a) baba (b) babc
 (c) abac (d) cacb
38. ORU—O—UXOR—X—RUX
 (a) ORXU (b) XURO
 (c) XRUO (d) OURX
39. — n m m n — m m n n — m n n m —
 (a) n n m m (b) n m n m
 (c) m n n m (d) n m m n
40. a __ ca __ bc __ bcc __ bca
 (a) bbaa (b) bbab
 (c) aabb (d) baba
41. h _ eg _ fegh _ eghfe _
 (a) gffh (b) hhgg
 (c) ffgh (d) fhfg
42. — bbm — amb — m — a — bb
 (a) mbabm (b) abmab
 (c) mabam (d) ambbm
43. w ---- uww ---- w ---- xuw - - - x ---- w
 (a) xuwuw (b) xwuuxw
 (c) xxuwwu (d) xxwwuu
44. 2 3 B _ 6 _ FG _ 5 D _ 8 _ HI
 (a) C, 7, 4, E, 9 (b) D, 8, 6, C, 7
 (c) E, 8, 7, D, 9 (d) W, 8, 7, I, 6
45. m — nm — n — an — a — ma —
 (a) amammn (b) aammnn
 (c) ammanm (d) aamnan
46. r __ sr __ tsrrt __ rr __ sr
 (a) ttss (b) tsts
 (c) trst (d) sstt
47. b __ b __ bb __ __ bbb __ bb __ b
 (a) bbbba (b) bbaaab
 (c) ababab (d) aabaab
48. ZYX—W—YZZ—XWWXY —
 (a) WXYZ (b) WYXZ
 (c) WXZY (d) XYZW
49. BE-K-Q; BB-EHH-KNNQQ
 (a) DLEK (b) HNEK
 (c) DLCJ (d) HNCJ
50. ab__d__ aaba __ na __ badna __ b
 (a) andaa (b) babda
 (c) badna (d) dbanb
51. —PSRQ—SRQP—RQPS—
 (a) PRQS (b) PQRS
 (c) QPSR (d) SRQP
52. a _ ab_bcbc_caca_
 (a) ccba (b) acba
 (c) bccb (d) bcab
53. cc — ccbc — accbcc — c — b
 (a) acac (b) abac
 (c) abab (d) aabc
54. gfe __ ig __ eii __ fei __ gf __ ii
 (a) eifgi (b) figie
 (c) ifgie (d) ifige
55. ab __ bbc __ c __ ab __ ab __ b
 (a) ccaac (b) cbabc
 (c) cacac (d) bccab
56. ab __ aa __ bbb __ aaa __ bbba
 (a) abba (b) baab
 (c) aaab (d) abab
57. —ONP M — NP MO — P MON—
 (a) PNOM (b) NMPO
 (c) ONPM (d) MONP
58. ac __ bd __ cc __ df __ egh
 (a) d, f, g, e (b) b, d, c, a
 (c) d, g, f, e (d) d, e, f, g
59. a b -- b a a -- a b --
 (a) b a a b b (b) a a b a b
 (c) a a b a a (d) a a a a a
60. a _ b _ a _ _ n _ bb _ abbn
 (a) abnabb (b) bnbban
 (c) bnbbna (d) babban
61. H— JH — IJHHI — HH — JH
 (a) IHJI (b) HIHI
 (c) IHJ (d) HJHJ
62. _aa_ba_bb_ab_aab
 (a) babab (b) aaabb
 (c) bbaab (d) bbbaa
63. ab — aa — aaa — a — ab — a
 (a) a b b a b (b) a b a a a
 (c) a a b b a (d) a b b a a
64. r _ se _ os _ ro _ er _ se
 (a) o r e s o (b) r o r e s
 (c) o e s r s (d) r o e s o
65. QST __, QS __ R, Q __ TR, __STR.
 (a) SQTR (b) RTSQ
 (c) TRQS (d) TSRQ
66. ac__cab__baca__aba__aca__
 (a) acbcc (b) aacbc
 (c) babb (d) bcbba
67. a __ ba __ bb __ ab __ a
 (a) aaba (b) baab
 (c) baaa (d) abab

68. — abb, aa — c, — ad —, aae —
 (a) acade (b) acede
 (c) bebde (d) babce
69. ab __ bcbca __ __ c __ bab
 (a) acbc (b) baaa
 (c) abcc (d) ccaa
70. a __ abbb __ ccccd __ ddccc __ bb __ ba
 (a) abcda (b) abdbc
 (c) abdc b (d) abcad

ANSWER KEY

1. (d)	2. (d)	3. (a)	4. (d)	5. (a)	6. (d)	7. (a)	8. (a)
9. (c)	10. (b)	11. (a)	12. (b)	13. (a)	14. (b)	15. (c)	16. (a)
17. (c)	18. (a)	19. (c)	20. (a)	21. (a)	22. (a)	23. (b)	24. (a)
25. (d)	26. (d)	27. (a)	28. (c)	29. (b)	30. (b)	31. (a)	32. (a)
33. (c)	34. (b)	35. (a)	36. (b)	37. (c)	38. (c)	39. (a)	40. (a)
41. (d)	42. (c)	43. (c)	44. (a)	45. (b)	46. (c)	47. (c)	48. (a)
49. (b)	50. (a)	51. (c)	52. (d)	53. (a)	54. (c)	55. (c)	56. (b)
57. (d)	58. (b)	59. (c)	60. (b)	61. (a)	62. (c)	63. (d)	64. (a)
65. (b)	66. (b)	67. (b)	68. (a)	69. (d)	70. (c)		

EXPLANATIONS

1. The series is baac/accb/cbba/baac.
2. From the alternatives, it is clear that the series can be divided into 4 groups of four term each --- each group comprising of three letters and a number at the third place.
 D __ 6 E / G P __ H / J __ 12 K / M B 15 __
 Studying the pairs 6E and 12K, we find that in each group, the number is one more than the number representing the position of the letter at the fourth place, in the English alphabet.
 Thus, putting A = 1, B = 2,, Y = 25, Z = 26, we have :
 1st missing term = J
 2nd missing term = H + 1 = 8 + 1 = 9;
 3rd missing term = P + 6 = V
 4th missing term = 15 - 1 = 14th letter = N.
 Thus, the 2nd and 4th missing terms are 9 and N.
3. bab [b] / b [a] b [b] / [b]
 abb
4. The series is aab/aaab/aaaab/aaaaaab.
- 5.
6. [m] op [n] / mo [p] n / [m] o pn / mop [n]
7. a [b] n [c] b / [a] [b] n c b / [a] [b] ncb
8. [t] st / t [s] t / t [s] t / ts [t]
9. [t] w i [n] / [t] w [i] n / t [w] in / [t] / wi [n]
10. a a [a] b / [a] a b c / [a] a c [d] / a [a] d e
 Therefore, ? = a a a d a
11. The series is ccba/bbca/aabc/ccba/b.
12. The series is ccc bbb aaa/cc bbb aaa/c.
 Thus, the pattern 'ccc bbb aaa' is repeated.
13. Here the letter series is as follows:
 acb bca aab baa aab baa
14. a c [e] g / a [c] e g / [a] c e [g]
15. Here the letter series is as follows:
 ncd dcn ccd dcn ndd dcn ndd
16. [a] a [b] a / aaba / [aa] ba / [a] ab [a]
17. The series is aabcd/abbcd/abccd/ abcd.
18. aba [c] baca / [a] ba [c] baca / abac [b] aca
19. [a] [b] a / ab [a] / a [b] a / [a] ba
20. The series is bcd/bcad/cabd/abcd/bcad/cabd.
 Clearly, each group consists of letters of the previous group in the order--- second, third, first and fourth.
21. ca [b] / bd [c] / ec [d] / fd [e]
22. Fill the first blank with the letter *b* so that we have two *a*'s followed by two *b*'s. Fill the second blank with either *a* so that we have four *a*'s followed by two *b*'s, or *b* so

that we have three a 's followed by three b 's. Fill the last space with the letter a . Thus, the two possible answers are baa and bba . But only baa is there on the options.

23. In each subsequent term the last letter becomes the first letter.
 24. The series is $bbcca/ccaab/aabbc/bbcca$.
 25. From the alternatives, it is clear that the series can be divided into 4 groups of four terms each – each group comprising of two letters and two numbers, occurring alternately.

$F _ U 6 / _ 9 I _ / T 7 _ 20 / _ 4 D 23$

4D indicates that in a group, the number at the end place denotes the position of the letter at the third place, in the English alphabet.

The term $T 7 _ 20$ indicates that in a group, the number at the fourth place denotes the position of the letter at the first place, in the English alphabet.

Thus, putting $A = 1, B = 2, \dots, Y = 25, Z = 26$, we have:

1st missing term = $U = 21$;

3rd missing term = $7\text{th} = G$;

5th missing term = $23\text{rd letter} = W$.

26. $a \boxed{b} ba / \boxed{a} bb \boxed{a} / ab \boxed{b} \epsilon$
 27. $ab c / abc / a bc / a bc / a b$
 28. The series is $abccab/bcaabc/abccab$.
 Thus, the pattern $abccab/bcaabc$ is repeated.
 29. $l \boxed{m} n \boxed{n} ml / lm \boxed{n} n \boxed{m} l$
 30. $m \boxed{n} o m / m n \boxed{o} m / \boxed{m} n o m / m n \boxed{o} m$
 31. In the second series, 1 occurs at the same position as D occurs in the first series.

So, 1 corresponds to D. Thus, the first question mark below D is to be replaced by 1.

Now, in the third series, c at the eighth place corresponds to A in the first series, while c at the sixth place corresponds to 2 in the second series. So, 2 corresponds to A . Thus, the second question mark below A is to be replaced by 2.

In the third series, a at the first place corresponds to B in the first series and at the third place corresponds to 4 in the second series. So, 4 corresponds to B . Thus, the question mark below B is to be replaced by 4.

Now, only 3 remains. So, 3 corresponds to C . Thus, the question mark below C is to be replaced by 3. Thus, $DACB$ corresponds to 1, 2, 3, 4.

32. The series is $acac/abab/acac/abab/acac$.
 Thus, the pattern $acac/abab$ is repeated.
 33. $a \boxed{a} baa \boxed{c} / aaba \boxed{a} c / \boxed{a} a l$
 34. The series is $cabbbb/ cabbbb / cabbbb$.
 Thus, the pattern 'cabbbb' is repeated.
 35. $Z \xrightarrow{-2} x \xrightarrow{-2} \boxed{V}$
 $T \xrightarrow{-2} R \xrightarrow{-2} \boxed{P}$
 $N \xrightarrow{-2} L \xrightarrow{-2} J \xrightarrow{-2} \boxed{H}$
 $F \xrightarrow{-2} D \xrightarrow{-2} \boxed{B}$

36. $aebd \boxed{c} / f j g i \boxed{h} / k o l n \boxed{m}$

37. The series is $abcac/bcaba/cabcb$.

Thus, the series consists of three sequences. The first three letters of each sequence are in a cyclic order and the last two letters of each sequence are the same as the first and third letters of the sequence.

38. $O R U \boxed{X} / O \boxed{R} U X / O$

$R \boxed{U} X / \boxed{O} R U X$

$\therefore ? = XRUO$

39. The pattern $n n m m$ is repeated.

$\boxed{n} n m m / n \boxed{n} m m / r$

$\boxed{m} m / n n m \boxed{m}$

40. The series is $abcab/bcabc/cabca$.

41. $h \boxed{f} eg / \boxed{h} feg / h \boxed{f} eg / hfe \boxed{g}$

42. $\boxed{m} bb / m \boxed{a} a / mb \boxed{b} / m \boxed{a} a / \boxed{m}$

43. $wxuw$ pattern is repeated.

$w \boxed{x} uw / w \boxed{xu} w / \boxed{w}$

$w / \boxed{w} x \boxed{u} w$

44. From the alternatives, it is clear that the series can be divided into groups of 4 terms each --- each group comprising of two numbers followed by two letters, as shown below:

$2 3 B _ / 6 _ F G / _ 5 D _ / 8 _ H I$

Clearly, the first number in each group represents the position of the letter at the third place, in the English alphabet. Thus, the third missing term is the number corresponding to the position of D in English alphabet i.e. 4.

Substituting other terms of (a) into the series, we get:

$2 3 B C / 6 7 F G / 4 5 D E / 8 9 H I$

Observe that the second number in each group represents the position of the letter at the fourth place, in the English alphabet. Hence, the answer is A .

45. $m \boxed{a} n / m \boxed{a} n / \boxed{m} a n / \boxed{m} a \boxed{n} / n$

Therefore, $? = aammnn$

46. $r t sr / r tsr / rt sr / r t sr$

47. The series is $babb/bbab/bbba/bbbb$. Thus, in each sequence, 'a' move one step forward and 'b' takes its place and finally in the fourth sequence, is eliminated.

48. $Z Y X \boxed{W} / W \boxed{X} Y Z /$
 $Z \boxed{Y} X W / W X \boxed{Y} Z$

49. $B \xrightarrow{+3} E \xrightarrow{+3} H \xrightarrow{+3} K \xrightarrow{+3} N \xrightarrow{+3} Q$
 $BB \boxed{E} EHH \boxed{K} KNNQQ$

50. The series is $abadna/abadna/abadna/ab$.

Thus, the pattern 'abadna' is repeated.

51. $\boxed{Q} P S R / Q \boxed{P} S R / Q P \boxed{S} R / Q P S \boxed{R}$

52. a [b] a b [c] /bc bc [a] / caca [b]

53. cc [a] ccb/c [c] accb/cc [a] c [c] b

54. The series is gfeii/gfeii/gfeii.

Thus, the pattern 'gfeii' is repeated.

55. The series is abc/b/bca/c/cab/a/abc/b.

56. The series is abb/aaabbb/aaaabbbb/a.

Thus the letters are repeated twice, then thrice, then four times and so on.

57. [M]ONP/M[O]NP/MO[N]P/MN

Therefore, ? = MONP

58. a c [d] /b d [e] / c e [f] /d [f] g / e ;

59. The pattern aba is repeated.

ab [a] / [a] ba /a [b] [a] / ab [a]

60. a [b] b [n] / a [bb] n / [a]bb [n] / abbn

61. H [I] JH / [H] IJH / HI [J] H / I

62. [b]aa[b] /ba[a]b/b[a]ab/[b]aε

63. ab [a] a/a [b] aa/a [b]a [a] / ab [a] a

64. The pattern rose is repeated.

r [o] se [r] os [e] ro [s] er [o] se

65. Q S T [R] / Q S [T] R / Q [S] T R / [Q] S T R

66. ac [a] c / ab [a] b / a c a [c] / aba [b] / a c a [c]

67. a b ba / a bb a / ab b ;

68. [a]abb / aa [c] c / [a] ad [d] / aac [e]

69. The series is abc bc/bcaca/cabab.

Thus, the series consists of three sequences. The first sequence begins with a, the second with b and the third with c. Each sequence consists of a letter followed by the pair of other two letters repeated twice.

70. The series is

aaa/bbbb/cccc/dddd/cccc/bbbb/a.



The meaning of 'Analogy' means 'Correspondence'. In this type of questions, a particular relationship is given and another similar relationship has to be identified from the choices provided. These tests are meant to test a candidate's overall ability, knowledge, power of reasoning to think accurately and concisely. Some of the common relationships which will aid you in detecting analogies are given below:

RELATIONSHIPS

1. Country and Capital

Ex. 1 Australia : Canberra

Here, Australia's capital is Canberra.

Afghanistan : Kabul	Austria : Vienna
Bangladesh : Dhaka	Bhutan : Thimphu
Canada : Ottawa	China : Beijing
Cuba : Havana	Denmark : Copenhagen
Egypt : Cairo	France : Paris
Greece : Athens	India : Delhi
Indonesia : Jakarta	Iran : Tehran
Iraq : Baghdad	Italy : Rome
Japan : Tokyo	Kenya : Nairobi
Nepal : Kathmandu	Norway : Oslo
Pakistan : Islamabad	Portugal : Lisbon
Russia : Moscow	Spain : Madrid
Sri Lanka : Colombo	Thailand : Bangkok
UK : London	USA : Washington

Likewise, we need to know the capitals of other countries to identify this analogy. Some of them are given below.

2. State and Capital

Ex. 2 U.P. : Lucknow

Here, U. P.'s capital is Lucknow.

Likewise, we need to know the capitals of the states also to identify this analogy. Some of them are given below :

Andhra Pradesh : Hyderabad	Assam : Dispur
Bihar : Patna	Gujarat : Gandhinagar
West Bengal : Kolkata	Karnataka : Bengaluru
Kerala : Thiruvananthapuram	Maharashtra : Mumbai

Meghalaya : Shillong

Odisha : Bhubaneswar

Sikkim : Gangtok

Nagaland : Kohima

Rajasthan : Jaipur

Tamil Nadu : Chennai

3. Country and Currency

Ex. 3 China : Yuan

Here, China's currency is Yuan.

Examples of other country's currencies are given below :

Argentina : Peso	Bangladesh : Taka
Burma : Kyat	Germany : Mark
Greece : Drachma	India : Rupee
Iran : Rial	Iraq : Dinar
Japan : Yen	Korea : Won
Kuwait : Dinar	Netherlands : Guilder
Russia : Rouble	Spain : Peseta
Sweden : Krona	Thailand : Baht
Turkey : Lira	UAE : Dirham
UK : Pound	USA : Dollar

4. Instrument and Measurement

Ex. 4 Hygrometer : Humidity

Here, Hygrometer is used to measure the humidity.

Other Examples:

Ammeter : Current	Anemometer : Wind speed
Taseometer : Strains	Balance : Mass
Barometer : Pressure	Scale : Length
Sphygmomanometer : Blood Pressure	Seismograph : Earthquakes
Screw gauge : Thickness	Odometer : Speed
Thermometer : Temperature	

5. Quantity and Unit:

Ex. 5 Area : Hectare

Hectare is the unit of measuring area.

Other Examples:

Angle : Radians	Conductivity : Mho
Current : Ampere	Energy : Joule
Force : Newton	Length : Metre
Luminosity : Candela	Magnetic field : Oersted

Mass : Kilogram
 Power : Watt
 Resistance : Ohm
 Time : Seconds
 Work : Joule

Potential : Volt
 Pressure : Pascal
 Temperature : Degrees
 Volume : Litre

Drone : Bee
 Gander : Goose
 Lion : Lioness
 Master : Mistress
 Nephew : Niece
 Stag : Doe

Earl : Countess
 Horse : Mare
 Lord : Lady
 Monk : Nun
 Son : Daughter
 Tutor : Governess
 Wizard : Witch

6. Individual and Group :

Ex. 6 Cattle : Herd

A group of cattle is called as herd.

Other Examples:

Artist : Troupe
 Chicken : Brood
 Fish : Shoal
 Geese : Gaggle
 Grapes : Bunch
 Ministers : Council
 Nomads : Horde
 Players : Team
 Riders : Cavalcade
 Robbers : Gang
 Sheep : Flock
 Soldiers : Army

Bees : Swarm
 Drawers : Chest
 Flowers : Bouquet
 Goods : Stock
 Man : Crowd
 Musicians : Band
 Pilgrims : Caravan
 Pupils : Class
 Rioters : Mob
 Sailors : Crew
 Singer : Chorus
 Termites : Colony

7. Animals with their respective Young Ones :

Ex. 7 Bear : Cub

Here, Bear's young one is called as Cub.

Other Examples:

Butterfly : Caterpillar
 Cockroach : Nymph
 Deer : Fawn
 Duck : Duckling
 Hen : Chick
 Insect : Larva
 Man : Child
 Stag : Fawn
 Tiger : Cub

Cat : Kitten
 Cow : Calf
 Dog : Puppy
 Frog : Tadpole
 Horse : Colt/Filly/Foal
 Lion : Cub
 Sheep : Lamb
 Swan : Cygnet

8. Gender with Respective name :

Ex. 8 Fox : Vixen

Here, Vixen is the female Fox.

Other Examples:

Bachelor : Spinster
 Bull : Cow
 Cock : Hen
 Dog : Bitch

Brother : Sister
 Bullock : Heifer
 Colt : Filly
 Drake : Duck

9. Animal and Movement :

Ex. 9 Bird : Fly

The movement of birds is commonly called as fly.

Other Examples:

Bear : Lumber
 Donkey : Trot
 Eagle : Swoop
 Horse : Gallop
 Lion : Prowl
 Owl : Flit

Cock : Strut
 Duck : Waddle
 Elephant : Amble
 Lamb : Frisk
 Mouse : Scamper
 Rabbit : Leap

10. Animal/Thing and its Sound :

Ex. 10 Donkey : Bray

Here, bray is the sound produced by the animal donkey.

Other Examples:

Bells : Chime
 Cat : Mew
 Cock : Crow
 Crow : Caw
 Duck : Quack
 Frog : Croak
 Hen : Cackle
 Jackal : Howl
 Lion : Roar
 Monkey : Gibber
 Rain : Patter
 Sparrow : Chirp

Camel : Grunt
 Cattle : Low
 Coins : Jingle
 Drum : Beat
 Elephant : Trumpet
 Goat : Bleat
 Horse : Neigh
 Leaves : Rustle
 Mice : Squeak
 Owl : Hoot
 Snake : Hiss
 Thunder : Roar

11. Individual/Thing and Class :

Ex. 11 Man : Mammal

Here, Man belongs to the class of Mammals.

Other Examples:

Butterfly : Insect
 Cup : Crockery
 Frog : Amphibian
 Ostrich : Bird
 Rat : Rodent
 Snake : Reptile

Chair : Furniture
 Curtain : Drapery
 Lizard : Reptile
 Pen : Stationery
 Shirt : Garment
 Whale : Mammal

12. Individual and Living Place :

Ex. 12 Bee : Hive

Here, a bee lives in a hive.

Other Examples:

Bird : Nest	Convict : Prison
Cow : Byre / Pen	Dog : Kennel
Eagle : Eyrie	Eskimo : Igloo
Gypsy : Caravan	Hare : Burrow
Horse : Stable	King : Palace
Knight : Mansion	Lion : Den
Lunatic : Asylum	Monk : Monastery
Mouse : Hole	Nun : Convent
Owl : Barn	Peasant : Cottage
Pig : Sty	Soldier : Barracks
Spider : Web	

13. Animals/Things and Keeping Place :

Ex. 13 Car : Garage

Here, a car is kept in a garage.

Other Examples:

Aeroplane : Hangar	Animals : Zoo
Bees : Apiary	Birds : Aviary
Clothes : Wardrobe	Curios : Museum
Fish : Aquarium	Grains : Granary
Guns : Armoury	Medicine : Dispensary
Patient : Hospital	Wine : Cellar

14. Games and Place of Playing :

Ex. 14 Boxing : Ring

Here, Boxing is played on a Ring.

Other Examples:

Athletics : Stadium	Badminton : Court
Cricket : Pitch	Exercise : Gymnasium
Hockey : Ground	Race : Track
Skating : Rink	Tennis : Court
Wrestling : Arena	

15. Worker and Tool :

Ex. 15 Carpenter : Saw

Here, Saw is the tool used by a Carpenter

Other Examples:

Author : Pen	Blacksmith : Anvil
Chef : Knife	Doctor : Stethoscope
Farmer : Plough	Gardener : Harrow
Labourer : Spade	Mason : PlumbLine
Soldier : Gun	Surgeon : Scalpel

Sculptor : Chisel

Warrior : Sword

Tailor : Needle

Woodcutter : Axe

16. Tool and Action :

Ex. 16 Knife : Cut

Here, a Knife is used for Cutting.

Other Examples:

Auger : Bore	Axe : Grind
Binocular : View	Chisel : Carve
Gun : Shoot	Loudspeaker : Amplify
Mattock : Dig	Microscope : Magnify
Needle : Sew	Oar : Row
Pen : Write	Shield : Guard
Shovel : Scoop	Spade : Dig
Spanner : Grip	Spoon : Feed
Sword : Slaughter	Tongs : Hold

17. Worker and Working Place :

Ex. 17 Farmer : Field

Here, a farmer works in the field.

Other Examples:

Actor : Stage	Artist : Theatre
Astronomer : Observatory	Beautician : Parlour
Chef : Kitchen	Clerk : Office
Doctor : Hospital	Engineer : Site
Gambler : Casino	Grocer : Shop
Lawyer : Court	Mechanic : Garage
Painter : Gallery	Sailor : Ship
Scientist : Laboratory	Servant : House
Teacher : School	Umpire : Pitch
Warrior : Battlefield	Waiter : Restaurant
Worker : Factory	

18. Worker and Product :

Ex. 18 Farmer : Crop

Here, a farmer produces the crop.

Other Examples :

Architect : Design	Author : Book
Butcher : Meat	Carpenter : Furniture
Chef : Food	Choreographer : Ballet
Cobbler : Shoes	Dramatist : Play
Editor : Newspaper	
Goldsmith : Ornaments	Mason : Wall
Poet : Poem	Producer : Film
Tailor : Clothes	Teacher : Education

19. Product and Raw material :

Ex. 19 Butter : Milk

Here, butter is made up of milk.

Other Examples:

Book : Paper	Cloth : Fibre
Fabric : Yarn	Furniture : Wood
Jaggery : Sugarcane	Jewellery : Gold
Linen : Flax	Metal : Ore
Oil : Seed	Omelette : Egg
Paper : Pulp	Prism : Glass
Pullover : Wool	Road : Asphalt
Rubber : Latex	Sack : Jute
Shoes : Leather	Wall : Brick
Wine : Grapes	

20. Part and Whole Relationship :

Ex. 20 Pencil : Lead

Here, lead is a part of the pencil.

Other Examples:

Aeroplane : Cockpit	Bicycle : Pedal
Book : Chapter	Car : Steering
Cart : Wheel	Circle : Arc
Class : Student	Clock : Needle
Fan : Blade	House : Room
Pen : Nib	

21. Pair Relationship :

Ex. 21 Saree : Blouse

Here, Saree and Blouse go together.

Other Examples:

Chair : Table	Cup : Saucer
Door : Window	Horse : Carriage
Lock : Key	Pencil : Eraser
Question : Answer	Shirt : Trousers
Shoes : Socks	

22. Study and Topic :

Ex. 22 Anthropology : Man

Here, Anthropology is the study of man.

Other Examples:

Archaeology : Artifacts	Astrology : Future
Botany : Plants	Cardiology : Heart
Conchology : Shells	Craniology : Skull
Eccrinology : Secretions	Entomology : Insects
Palaeography : Writings	Herpetology : Amphibians
Ichthyology : Fishes	Mycology : Fungi
Nephrology : Kidney	Onomatology : Names
Oology : Eggs	Ornithology : Birds
Haematology : Blood	Palaeontology : Fossils
Pathology : Diseases	Pedology : Soil

Phycology : Algae
Seismology : Earthquakes
Selenography : Moon
Zoology : Animals

Physiology : Body
Taxonomy : Classification
Virology : Viruses

23. Word and Intensity :

Ex. 23 Wish : Desire

Here, Desire is of higher intensity than Wish.

Other Examples:

Anger : Rage	Crime : Sin
Error : Blunder	Famous : Renowned
Kindle : Burn	Moisten : Drench
Quarrel : War	Refuse : Deny
Sink : Drown	Speak : Shout
Touch : Push	Unhappy : Sad

24. Word and Synonym:

Ex. 24 Presage : Predict

Here, Presage means almost the same as predict. Thus, Predict is the synonym of Presage

Other Examples:

Abduct : Kidnap	Abode : Dwelling
Alight : Descend	Assign : Allot
Ban : Prohibition	Blend : Mix
Brim : Edge	Dearth : Scarcity
Dissipate : Squander	Fallacy : Illusion
Fierce : Violent	Flaw : Defect
Haughty : Proud	House : Home
Mend : Repair	Presume : Assume
Sedate : Calm	Solicit : Request
Substitute : Replace	Vacant : Empty

25. Word and Antonym :

Ex. 25 Robust : Weak

Here, Robust means the opposite of Weak. Thus, Robust is the antonym of weak.

Other Examples:

Advance : Retreat	Affirm : Deny
Attack : Defend	Best : Worst
Chaos : Peace	Condense : Expand
Cordial : Hostile	Create : Destroy
Cruel : Kind	Deep : Shallow
Fresh : Stale	Gentle : Harsh
Gradual : Abrupt	Ignore : Notice
Initial : Final	Kindle : Extinguish
Lend : Borrow	Lethargy : Alertness
Mourn : Rejoice	Sink : Float

COMPLETING THE INCOMPLETE PAIR

Here, in this type, two pairs are given in the question where one pair is completely paired up while the other one is incomplete. The pairs are related in some way to each other.

To find out the incomplete pair, we need to analyse and determine the relationship between the first pair which subsequently helps us to find out the analogous pair of the incomplete pair from the given alternatives, which bears the same relationship as that of the first pair.

Examples :

Ex. 1 Touch : Feel : : Greet : ?

- (a) Smile (b) Acknowledge
(c) Success (d) Manners

Solution: (b)

A Touch has Feeling effect. Similarly, Greet is acknowledged.

Ex. 2 House : Room :: World : ?

- (a) Land (b) Sun
(c) Air (d) Nation

Solution: (d)

Room is a part of the house. Similarly, nation is a part of the world.

Ex. 3 Carbon : Diamond :: Corundum : ?

- (a) Garnet (b) Ruby
(c) Pukhraj (d) Pearl

Solution: (b)

Diamond is a transparent precious stone of pure carbon. Similarly, corundum is equivalent to Ruby.

Ex. 4 Smoke : Pollution :: War : ?

- (a) Victory (b) Peace
(c) Treaty (d) Destruction

Solution: (d)

Smoke leads to pollution. Similarly, War leads to destruction.

Ex. 5 Ink : Pen :: Blood : ?

- (a) Accident (b) Doctor
(c) Vein (d) Donation

Solution: (c)

Pen is filled with ink. Similarly, vein is filled with blood.

Ex. 6 Good : Bad :: Roof : ?

- (a) Walls (b) Pillars
(c) Floor (d) Window

Solution: (c)

The second term is antonym of the first term. Hence, Roof: Floor.

Ex. 7 Lion : Den :: Rabbit : ?

- (a) Hole (b) Pit
(c) Burrow (d) Trench

Solution: (c)

The habitat (living place) of lion is called Den. Similarly, the living place of rabbit is burrow.

Ex. 8 Novelty : Oldness :: Newness : ?

- (a) Model (b) Antiquity
(c) Discovery (d) Culture

Solution: (b)

Novelty means the quality of being new, different or strange. Oldness shows just the opposite meaning of novelty. Antiquity means the ancient past, an object from ancient times and is opposite to the word Newness.

Ex. 9 Detective : Informer :: Reporter : ?

- (a) Source (b) Editorial
(c) News (d) Essay

Solution: (a)

Detective collects vital information with the help of informer. Similarly, Reporter collects news from source.

Ex. 10 Genuine : Authentic :: Mirage : ?

- (a) Illusion (b) Image
(c) Hideout (d) Reflection

Solution: (a)

Genuine means real, not artificial, sincere, honest etc. Authentic means known to be true or genuine. Thus, Genuine and Authentic are synonymous to each other. Mirage is an illusion caused by hot air conditions.

SIMPLE ANALOGY

In this type, questions are easier to understand than the first type. Since it has been portrayed directly as words instead of using ‘:’ and ‘::’. The options are given in such a way that it makes us confusing about the answer.

Example 1 : Noise : Din :: Quiet : ?

- (a) Hush (b) Dumb
(c) Gag (d) Mouth

Solution: (a)

Here, second is the more intense form of the first. Din is more intense form of Noise while Hush is more intense form of Quiet.

Example 2 : Distil : Whisky :: Brew : ?

- (a) Ferment (b) Gin
(c) Beer (d) Sugar

Solution: (c)

Here, first is the process of preparing the second. Distil is the process of preparing Whiskey while Brew is the process of preparing Beer.

Example 3 : Leisurely : Unhurried :: Tardy : ?

- (a) Sluggish (b) Dim
(c) Dawdle (d) Sour

Solution: (a)

The words in each pair are synonyms of each other. Here, Sluggish is the synonym of Tardy.

Example 4 : Solicitous : Concern :: Verbose : ?

- (a) Tiredness
- (b) Wordiness
- (c) Speech
- (d) Deafness

Solution: (b)

First exhibits the second. Solicitous exhibits the Concern while Verbose exhibits the Wordiness.

Example 5 : Wince : Pain :: Prostration : ?

- (a) Discomfiture
- (b) Frustration
- (c) Submissiveness
- (d) Strained

Solution:

First is the sign of the Second. Wince is the sign of Pain while Prostration is the sign of Submissiveness.

FINDING THE RELATED PAIR OF WORDS

In this type, pair of words is given followed by four pairs of words as alternatives. Here, we need to find out the suitable or the best pair among the given alternatives which bears the same relationship as those of the given pair.

Examples

Ex. 1 Druggist: Pharmacy :: _____ :: _____

- (a) Chef : Restaurant
- (b) Librarian : Catalogue
- (c) Carpenter : Wood
- (d) Physician : Patient

Solution: (b)

Druggist (Pharmacist) is responsible for preparing and dispensing of drugs (Pharmacy). Similarly, Librarian prepares catalogue.

Ex. 2 Calendar : Date :: _____ :: _____

- (a) Time : Hour
- (b) Transport : Bus
- (c) Dictionary : Word
- (d) City : Pin Code

Solution: (c)

Date is given in calendar. Similarly words are arranged in alphabetical order in Dictionary.

Ex. 3 Editor : Magazine :: _____ :: _____

- (a) Movie : Scene
- (b) Music : Actor
- (c) Drama : Director
- (d) Drawing : Artist

Solution: (c)

Editor is the overall in charge of a magazine. Similarly, a drama is played under the supervision of Director.

Ex. 4 Necklace: Adornment:: _____ : _____

- (a) Medal: Decoration
- (b) Bronze: Medal
- (c) Scarf: Dress
- (d) Window: House

Solution: (a)

Necklace is used for adornment. Similarly, Medal is a Decoration.

Ex. 5 Horse: Hoof:: _____ : _____

- (a) Man: Foot
- (b) Dog: Black
- (c) Paisa: Rupee
- (d) Pen: Pencil

Solution: (a)

The hoof of horse is analogous to foot of man.

Ex. 6 Prologue : Play:: _____ : _____

- (a) Epilogue : Oration
- (b) Intermezzo : Symphony
- (c) Overture : Opera
- (d) Chapter : Novel

Solution: (c)

Prologue is a preliminary speech given at the beginning of a play. Similarly, overture is an orchestral composition forming the introduction to an opera.

Ex. 7 Friendly : Inimical:: _____ : _____

- (a) Lithosphere : Hydrosphere
- (b) Abstain : Refrain
- (c) Condemnation : Approval
- (d) Disappointment : Embarrassment

Solution: (c)

The words in each pair are antonyms of each other. Here, condemnation is the antonym of Approval.

Ex. 8 Intelligentsia : Elitist:: _____ : _____

- (a) Commonality : Common Class
- (b) Gentry : Public
- (c) Rabble : Plebeian
- (d) Outer shell : Sea shell

Solution: (c)

The words in each pair are synonyms of each other. Here, Rabble is the synonym of Plebeian.

Ex. 9 Conciliatory : Friendliness:: _____ : _____

- (a) Cache : Hide
- (b) Garrulous : Hold
- (c) Obvious : Explain
- (d) Timid : Bold

Solution: (a)

The words in each other are synonyms of each other. Here, Cache is the synonym of Hide.

Ex. 10 Circuitous : Route:: _____ : _____

- (a) Profound : Depth
- (b) Judicious : Selection
- (c) Devious : Argument
- (d) Problematic : Solution

Solution: (c)

First denotes a round about way of the second.