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SET

State Eligibility Test

Volume - 2

Mathematical & Logical Reasoning Aptitude

SET - VOLUME - 2

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MATHEMATICAL REASONING APTITUDE

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What is Reasoning?

Reasoning is the process of thinking about things in a logical, rational way. It is considered an innate human ability that has been formalized by fields such as logic, mathematics and artificial intelligence.

Types of Reasoning:

1. Deductive reasoning:

Deductive reasoning is a method of proving a theory or hypothesis using formal logic and observations. Deductive reasoning starts with a hypothesis that is then supported or disproved through observations or rational thought.

A marketing division, for example, analyses data and confirms that their company's most important demographic is young parents. They opt to give more of the marketing money to social media channels that target that category based on this information.

For example, "All men are mortal. Harold is a man. Therefore, Harold is mortal." For deductive reasoning to be sound, the hypothesis must be correct. It is assumed that the premises, "All men are mortal" and "Harold is a man" are true. Therefore, the conclusion is logical and true.

2. Inductive reasoning:

To validate observations, inductive reasoning employs theories and assumptions. It's the polar opposite of deductive reasoning in that it requires deducing a general rule from a specific case or cases.

Because it employs conclusions from observations to make generalisations, the outcomes of inductive reasoning are not always certain. Extrapolation, forecasts, and part-to-whole arguments all benefit from inductive reasoning.

An example of inductive logic is, "The coin I pulled from the bag is a 5 Rs Coin. Again I pulled its again a coin of 5 Rs. A third coin from the bag is a 5 Rs Coin. Therefore, all the coins in the bag are 5 Rs Coin."

3. Analogical reasoning:

Analogical reasoning is a style of reasoning that looks for similarities between two or more objects and then uses those similarities to find other properties they share. It is based on the brain's tendency to notice patterns and make connections.

4. Abductive reasoning:

Abductive reasoning is a style of reasoning that reaches a logical conclusion based on an observation or group of observations. Abductive reasoning is similar to inductive reasoning, but it allows you to make the greatest estimates to get the simplest conclusions. Abduction can help with both troubleshooting and decision-making, especially when dealing with uncertainties.

For example, a person walks into their living room and finds torn up papers all over the floor. The person's dog has been alone in the room all day. The person concludes that the dog tore up the papers because it is the most likely scenario. Now, the person's sister may have brought by his niece and she may have torn up the papers, or it may have been done by the landlord, but the dog theory is the more likely conclusion.

5. Cause-and-effect reasoning:

Cause-and-effect reasoning is a style of reasoning in which the relationship between two events is demonstrated. This logic is used to describe what might happen if a certain action is taken or why certain things happen when certain circumstances are met. When people draw on personal experience and a drive to improve, this form of reasoning is frequently used to guide daily decision-making.

6. Critical thinking

Critical thinking is a process of rational thought that seeks to draw conclusions in an objective, thorough and informed manner. It's a product of human thought and is influenced by factors such as culture and language. Human thought is based on natural language that allows for a great range of ideas to be contemplated. For example, critical thinking can be used to critique a film or book.

7. Decompositional reasoning:

Decompositional reasoning is the process of breaking things down into their basic components in order to comprehend how each component contributes to the overall functionality of the object. Decompositional reasoning allows an observer to derive powerful conclusions about the total by evaluating each portion separately.

Series

The series test series has to be studied carefully to find out whether this series is following the order/rule or not.

The questions asked under this test can be classified into the following categories.

1. Digit series
2. Alphabet series
3. Frequency Series of Digits/Characters

There are a few things to keep in mind while doing chain test.

A. First try to play the whole chain.
B. If the chain does not work, then we run it by laughing.
C. At the very end run the alternate series

1. Digit series -

In this, a series of marks is given in the questions asked. This series is based on addition, subtraction, multiplication, division, square, square root, cube, cube root etc.

> ### Type - (i) Finding the wrong term in the series.

In the series sequence, a wrong digit is added in place of the digit appearing at a particular place. For this, first of all it should be known that which term is not changing according to that rule, that is the wrong term.

Ex.1 **Which number is missing in the following number series?**
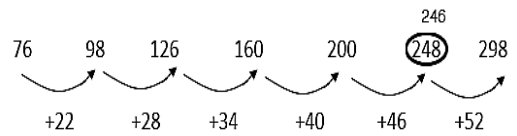
76, 98, 126, 160, 200, 248, 298

(A) 248   (B) 200

(C) 160   (D) 298

Ans. **(A)**

Sol. After observing the above series carefully, we find that the sixth term of the series is inappropriate

Because the number to be added to each term is 6 digits more than its first number.
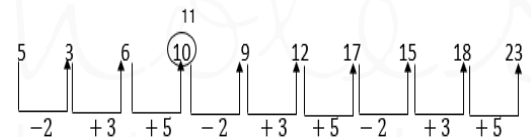

So instead of 248, there will be 246.

Ex.2 **Which number in the following series is such that it is inappropriate in the series?**

5, 3, 6, 10, 9, 12, 17, 15, 18, 23

(A) 6   (B) 9

(C) 12   (D) 10

Ans. **(D)**

Sol. After observing the above series carefully, we find that the series is decreasing and increasing in the order of -2, +3, +5, -2, +3, +5 ....

In the above series, 11 should come after the digit '6'. Hence the wrong number in the series is 10.
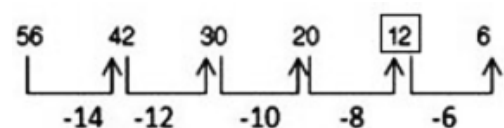
Directions: Question (1-7) Find the missing number in the following series.

Q.1 **56, 42, 30, 20, ?, 6**

(A) 15   (B) 12

(C) 18   (D) 14

Ans. **(B)**

Explanation-

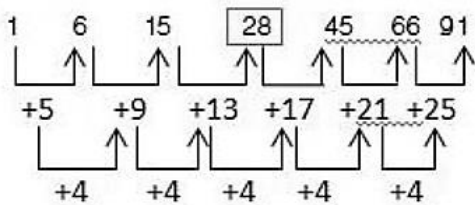

So, ? = 12

Q.2   1, 6, 15, ?, 45, 66, 91

(A) 25   (B) 26

(C) 27   (D) 28

Ans.   (D)

Explanation-

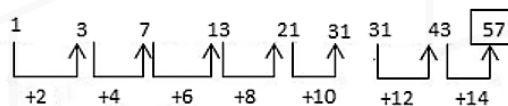So, ? = 28

Q.3   1, 3, 7, 13, 21, 31, 43, ?

(A) 55   (B) 57

(C) 59   (D) 61

Ans.   (B)

Explanation-
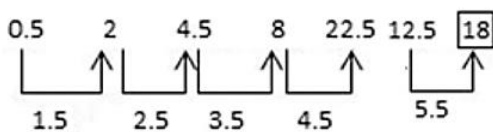

So, ? = 57

Q.4   0.5, 2, 4.5, 8, 12.5, ?

(A) 17   (B) 16

(C) 16.5   (D) 18

Ans.   (D)

Explanation-

So, ? = 18

Q.5   3, 6, 18, 21, 63, 66, ?

(A) 181   (B) 160

(C) 147   (D) 198

Ans.   (D)

Explanation-

3 + 3 = 6, 6 × 3 = 18

18 + 3 = 21, 21 x 3 = 63

So, 63 + 3 = 66

? = 66 × 3 =198

Q.6   510, 322, 404, ?

(A) 422   (B) 371

(C) 629   (D) 819

Ans.   (A)
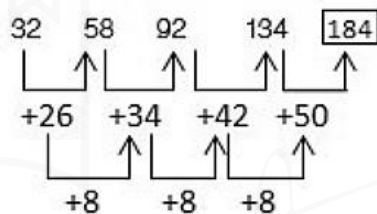
Explanation –

There are even numbers in the sequence.

So, ? = 422

Q.7   32, 58, 92, 134, ?

(A) 184   (B) 194

(C) 156   (D) 169

Ans.   (A)

Explanation-

So, ? = 184

Type – (II)

Completing the series -

Under this, in the given series sequence, a particular place is left blank or is denoted by the question mark (?), then the candidates are expected to find that sequence and mark the question mark (?). Select the appropriate number to come in place of.

Ex.3   Which of the given number will come in place of question mark in the series?

16, 23, 31, 40, 50, 61, ?

(A) 81   (B) 83

(C) 77   (D) 73

Ans.   (D)

Sol.   On observing the above series, we find that the series is increasing in the order of +7,+8,+9,+10………

16   23   31   40   50   61   (73)

Therefore, the appropriate number to come in place of the question mark will be 73.

Ex.4 **Which number will come in the question place in the above series?**

5a 4a 15a 7a 23a 11a 29a 16a 33a g

(a) 11   (b) 22

(b) 29   (d) 34

Ans. **(B)**

Therefore, the appropriate number to come in place of the question mark will be 22.

Type – III based on series rule

There are 2 types of rules of the category based on the rule of the first category.

1. Arithmetic series
2. Geometric series

1. **Arithmetic Series -** An arithmetic series is called a series in which the difference of two consecutive terms is equal.

   The number obtained by subtracting the preceding term from a term of an A.P. is called 'transition'.

   If there is the first post of the parallel category and the post is of the post, then there will be an parallel category.

   Hence the nth term of the A.P. T_n = a + (n-d)

   (1) d (where, a is the first term and d is the transition)

Ex.5 **What will be the 10th term of 1st series 3, 5, 7, 9……**

(A) 15   (B) 20

(C) 12   (D) 21

Ans. **(D)**

Sol. 10th term

T_n = a + (n-1) d

T_{10} = 3 + (10 − 1) × 2

T_{10} = 3 + 18

T_{10} = 21

Hence the 10th term is 21

Ex.6 **If the first term of an arithmetic sequence is 5, the second term is 3 and the last term is 80, then find the number of terms.**

(A) 24   (B) 23

(C) 26   (D) 29

Ans. **(C)**

Sol. a = 5, d = 3, T_n = 80, n = ?

T_n = a + (n − 1)d

80 = 5 + (n − 1) 3

(n − 1) =80 − 5/3

n − 1 = 25

n = 25 + 1

n = 26

Hence the number of posts is 26

2. **Geometric Series -** Such a series in which the ratio of two consecutive terms is same is called 'Geometric Series'.

   This ratio is called the 'common ratio' of the geometric series. The 'common ratio' of a geometric series is obtained by dividing a term by its previous term, i.e.

   t2/t1=t3/t2=t4/t3= ⋯ … … … …

   =tn/tn−1=proportionate

   t1,t2,t3,t4

   The middle term is the average of both the terms.

   t2 − t1 = t3 − t2 = t4 − t3

If the first term of a geometric series is a and the proportion is r, then the nTH term of that geometric series

$T_n = a \cdot r^{n-1}$

Ex.7 **What is the 6th term of the series 3,9,27,81,......?**

(A) 729   (B) 243

(C) 1681   (D) 1747

Ans. **(A)**

Sol. First Term a = 3

Common ratio d=9/3=3

6th termT6 = $a \cdot r^{n-1}$

= $3 \cdot 3^{6-1}$

= 3×3^5

= 3 × 243 = 729

= 3 × 243 = 729

So the 6th term is 729

Ex.8 **What will be the 10th term of the series 7, 14, 28,...... ?**

(A) 3216   (B) 2736

(C) 2684   (D) 3584

Ans. **(D)**

Sol. First Term a=7

Common ratio=14/7=2

10th term

$T_{10} = a \cdot r^{n-1}$

= $7 \times 2^{10-1}$

= 7×2^9

= 7 × 512

= 3584

Hence the 10th term is 3584

Type-IV

Q.1 **In the following questions, select the odd number pair from the given alternatives.**

(A) 10.30   (B) 11.33

(C) 50.150   (D) 13.37

Ans. **(D)**

Explanation-

Except the number pair 13-37, in all the other number-pairs, the second number is three times the first number.

10 × 3 = 30

11 × 3 = 33

50 × 3 = 150

but,

13 × 3 − 2 = 37

Q.2 **In the following questions, select the odd number pair from the given alternatives.**

(A) 18 : 37   (B) 24 : 47

(C) 32 : 65   (D) 48 : 97

Ans. **(B)**

Explanation-

Number pair 24: Except 47, in all other number-pairs, the second number is one more than twice the first number.

18 × 21= 37

32 × 21 =65

48 × 21= 97

but,

24 × 2-1=47

3. **Alphabet series -**

Under this, a series of letters related to the English alphabet is given in the given series, in which one or two letters are omitted, or is represented by a question mark (?) in that place.

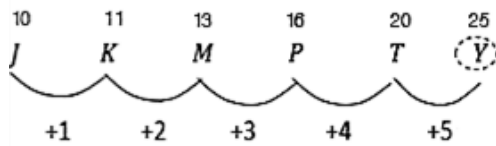**Ex.9** **What will come in place of question mark (?) in the given series?**

J K M P T ?

(A) X   (B) W

(C) Y   (D) none

Ans. **(C)**

Sol.

Hence the appropriate letter coming in place of question mark (?) will be Y.

Ex.10 L7C, N9F, P12I, R16L, ? What will come at the question mark in this series?

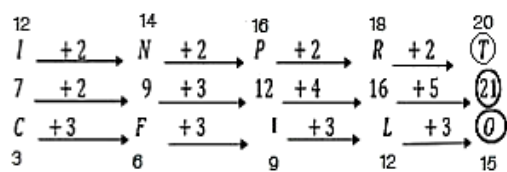(A) U21O   (B) S21P

(C) S20O   (D) T21O

Ans. (D)

Sol. Therefore, in place of the question mark (?), the appropriate number-letter group will beT21O.

Ex.11 What will come in place of the missing letters of the following series?

ab___baabc___aabcb____abcb__

(A) bcaa   (B) cbaa

(C) abca   (D) aacb

Ans. (B)

Q.1 In the following question, select the odd letters from the given alternatives.

(A) mop   (B) prs

(C) tvw   (D) xyz

Ans. (D)

Explanation-
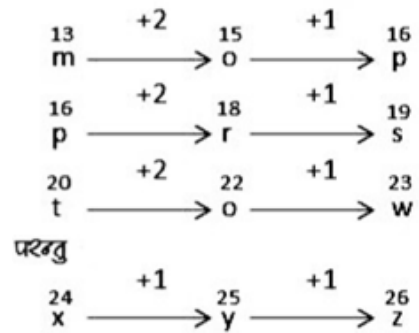
Q.2 In the following questions, select the odd letters from the given alternatives.

(A) AB   (B) EG

(C) IJ   (D) OP

Ans. (B)

Explanation-
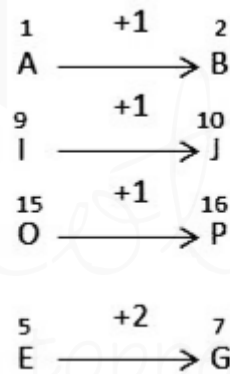
Q.3 In the following questions, select the odd letters from the given alternatives.

(A) PM   (B) DA

(C) RP   (D) OL

Ans. (C)

Explanation -
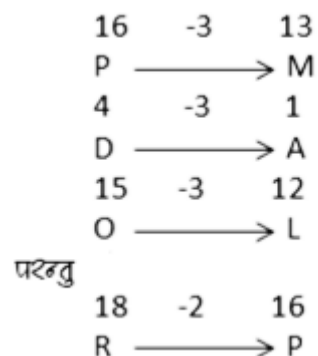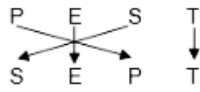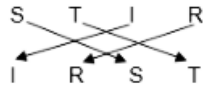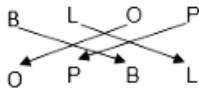
Q.4 In the following questions, select the odd letters from the given alternatives.

(A) BLOP-OPBL   (B) STIR-IRST

(C) CANT-NTCA   (D) PEST-SEPT
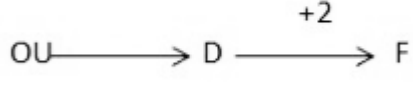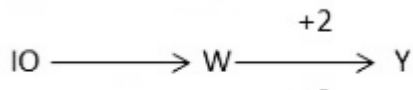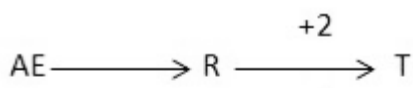
Ans. (D)

Explanation-

व्याख्या–

Q.5 In the following questions, select the odd letters from the given alternatives.

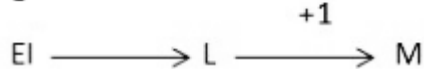(A) EI-LM   (B) AE-RT

(C) IO-WY   (D) OU-DF

Ans. (A)

Explanation –

'Letter-pair' is a letter gap between the letters of the second unit in all other letter-pairs except 'EI-LM'. The first unit has a continuous vowel.

$$AE \xrightarrow{} R \xrightarrow{+2} T$$

$$IO \xrightarrow{} W \xrightarrow{+2} Y$$

$$OU \xrightarrow{} D \xrightarrow{+2} F$$
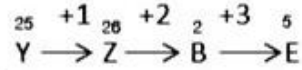
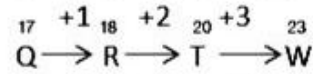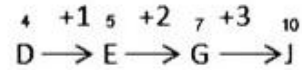परन्तु

$$EI \xrightarrow{} L \xrightarrow{+1} M$$

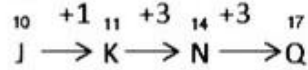**Q.6** In the following questions, select the odd letters from the given alternatives.

(A) DEGJ   (B) QRTW

(C) YZBE   (D) JKNQ

Ans. (D)

Explanation -

$D \xrightarrow[+1]{} E \xrightarrow[+2]{} G \xrightarrow[+3]{} J$

$Q \xrightarrow[+1]{} R \xrightarrow[+2]{} T \xrightarrow[+3]{} W$

$Y \xrightarrow[+1]{} Z \xrightarrow[+2]{} B \xrightarrow[+3]{} E$

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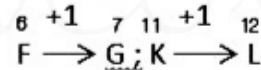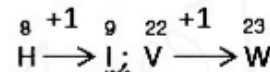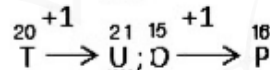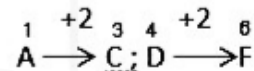$J \xrightarrow[+1]{} K \xrightarrow[+3]{} N \xrightarrow[+3]{} Q$

Q.7 In the following questions, select the odd letters from the given alternatives.

(A) ACDF   (B) TUOP

(C) HIVW   (D) FGKL

Ans. (A)

Explanation -

$A \xrightarrow{+2} C ; D \xrightarrow{+2} F$

$T \xrightarrow{+1} U ; D \xrightarrow{+1} P$

$H \xrightarrow{+1} I ; V \xrightarrow{+1} W$

$F \xrightarrow{+1} G ; K \xrightarrow{+1} L$

3. Frequency series of digits or letters -

Under this, the numbers or letters appear repeatedly in a certain sequence, thus forming a series of numbers / letters in which one or two digits in the middle or end or

Alphabets are lost and candidates have to find out the missing number/letters.

Ex.12 0248750300102487503000010

(A) 2,4   (B) 0,1

(C) 0,2   (D) 4,8

Ans. (A)

Sol. After looking carefully at the given series of numbers, we find that 02487503001 is appearing repeatedly in the sequence.

So the next two digits will be 2 and 4.

Directions: (1-7) Find the missing term in the following series-

Q.1 Y, S, N, J, G, ?

(A) F   (B) E

(C) H   (D) I

Ans. **(B)**

Explanation-

Hence, the appropriate term coming in place of (?) will be E.

Q.2 NZ, OY, PX, QW, RV, ?

(A) FS   (B) SU

(C) UF   (D) TU

Ans. **(B)**

Explanation-

Hence, the appropriate term will come in place of (?) will be SU.

Q.3 A, E, I, ?, Q

(A) O   (B) M

(C) U   (D) L

Ans. **(B)**

Explanation-

$$A \xrightarrow{+4} E \xrightarrow{+4} I \xrightarrow{+4} \boxed{M} \xrightarrow{+4} Q$$

Hence, the appropriate term to come in place of (?) will be M.

Q.4 a d c e b e d f c f e ?

(A) h   (B) g

(C) f   (D) d

Ans. **(B)**

Explanation-

$$a \xrightarrow{+1} b \xrightarrow{+1} c$$
$$d \xrightarrow{+1} e \xrightarrow{+1} f$$
$$c \xrightarrow{+1} d \xrightarrow{+1} e$$
$$e \xrightarrow{+1} f \xrightarrow{+1} \boxed{g}$$

Hence, the appropriate term coming in place of (?) would be g.

Q.5 AAT, BBE, CCP, ?

(A) DDA   (B) DDB

(C) DDC   (D) DDD

Ans. **(A)**

Explanation-

$$A \xrightarrow{+1} B \xrightarrow{+1} C \xrightarrow{+1} \boxed{D}$$
$$A \xrightarrow{+1} B \xrightarrow{+1} C \xrightarrow{+1} \boxed{D}$$
$$T \xrightarrow{-15} E \xrightarrow{-15} P \xrightarrow{-15} \boxed{A}$$

Hence, the appropriate term to come in place of (?) will be DDA

Q.6 BC, GH, LM, ?

(A) PQ   (B) RS

(C) QR   (D) OP

Ans. **(C)**

Explanation-

$$B \xrightarrow{+5} G \xrightarrow{+5} L \xrightarrow{+5} \boxed{Q}$$
$$C \xrightarrow{+5} H \xrightarrow{+5} M \xrightarrow{+5} \boxed{R}$$

Therefore, the appropriate term that comes in place of (?) will be QR.

Q.7 AC, FH, KM, PR, ?

(A) UX   (B) TV

(C) UW   (D) VW

Ans. **(C)**

Explanation-

$$A \xrightarrow{+5} F \xrightarrow{+5} K \xrightarrow{+5} P \xrightarrow{+5} \boxed{U}$$
$$C \xrightarrow{+5} H \xrightarrow{+5} M \xrightarrow{+5} R \xrightarrow{+5} \boxed{W}$$

Hence, the appropriate term to come in place of (?) will be UW.
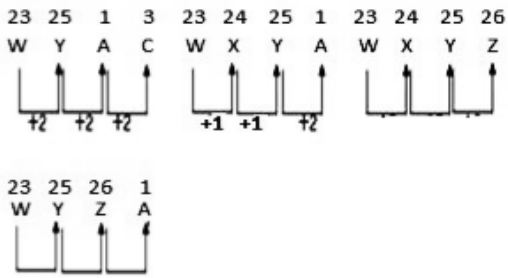
Q.8 **In the following questions, select the odd number from the given alternatives.**

(A) 362   (B) 145

(C) 26   (D) 625

Ans. **(D)**

Explanation-

Except the number 625, all other numbers are one more than the perfect square of certain natural numbers. The number 625 is a perfect square number.

$362 = 19 \times 19 + 1$

$145 = 12 \times 12 + 1$

$26 = 5 \times 5 + 1$

But,

$625 = 25 \times 25$

Example with Solution

1. **4, 10, 22, 46, ? Find the missing number.**

(A) 56   (B) 66

(C) 76   (D) 94

Ans. (D)

Sol.

So, (?) = 94

2. **87, 90, 84, 88, 81, ?, ?**

(A) 86,78   (B) 86,88

(C) 86,88   (D) 85,93

Ans. (A)

Sol.

Hence, option(A) 86,78 will be correct.

3. **Which of the following numbers is not correct in the sequence -**

3, 6, 10, 16, 21, 28

(A) 10   (B) 3

(C) 16   (D) 21

Ans. (C)

Sol.

Hence, option (C) 16 will be correct.

4. **2, 12, 36, 80, 150, ? Find the missing number.**

(A) 210   (B) 258

(C) 252   (D) 194

Ans. (C)

Sol.

Hence, option (C) 252 will be correct.

5. **Which of the following numbers is not suitable in the sequence?**

19, 28, 39, 52, 67, 84, 102

(A) 84   (B) 102

(C) 67   (D) 52

Ans. (B)

Sol.

Hence, option (B) 102 will be wrong number.

6. **Find the missing letter**

(A) WYAC   (B) WXYA

(C) WXYZ   (D) WYZA

Ans. (A)
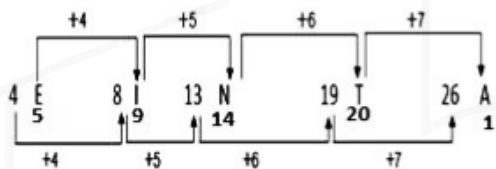
Sol.

Hence, option (A) would be correct.

7. **4E, 8I, 13N, 19T, ? Find the missing term.**
(A) 26U   (B) 26A
(C) 26Z   (D) 25X

Ans. **(B)**

Sol.

Hence, option (B) will be correct.

8. **ab__dbc___ ___cda___d_bcab__d**
(A) cdabac   (B) cdaabc
(C) adabac   (D) dadabc
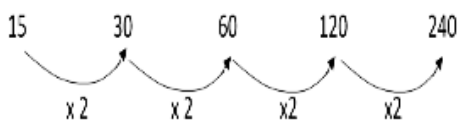
Ans. **(A)**

Sol. abcd/bcda/cdab/dabc/abcd
Hence, option (A) would be correct.

9. **15, 30, 60, 120, ? Find the missing number.**
(A) 250   (B) 245
(C) 240   (D) 260
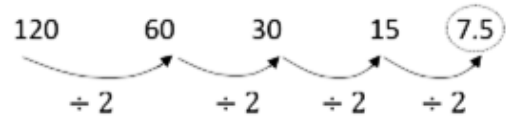
Ans. **(C)**

Sol.

Hence, option (C) will be correct.

10. **120, 60, 30, 15, ? Find the missing number.**
(A) 7.5   (B) 5.7
(C) 3.0   (D) 8.5
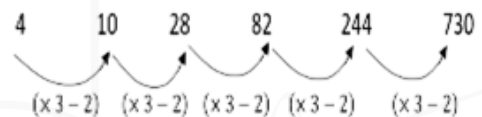
Ans. **(A)**

Sol.

11. **4, 10, ? 82, 244, 730**
(A) 218   (B) 28
(C) 24   (D) 77

Ans. **(B)**

Sol.
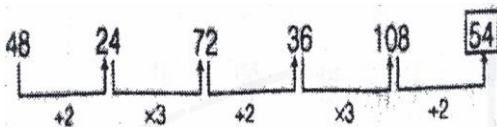

Hence, option (B) will be correct.

Series Practice

Directions (Q. No. 1 - 6) - In each of the following questions, a series of numbers is given, which number will come in place of the question mark (?)?

Q.1. 48, 24, 72, 36, 108, ?

    (a) 115   (b) 216

    (c) 121   (d) 54

    Ans. (d)

Explanation - Here is the process of division and multiplication. Hence, 54 will come in place of question mark (?).
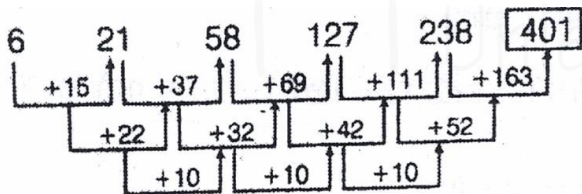

Q.2. 6, 21, 58, 127, 238, ?

    (a) 290   (b) 340

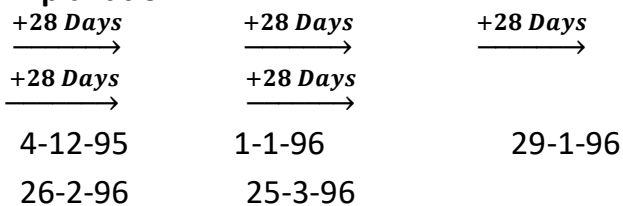   (c) 395   (d) 401

    Ans. (d)

Explanation

Q.3. 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) 25/7/96

    Ans. (b)

Explanation –

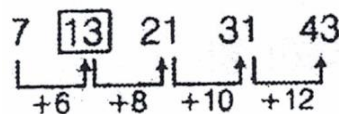| +28 Days	+28 Days	+28 Days
+28 Days	+28 Days	
4-12-95	1-1-96	29-1-96
26-2-96	25-3-96	

Q.4. What is the missing word in the series 7, X, 21, 31, 43, ?

    (a) 11   (b) 12

    (c) 13   (d) 14

    Ans. (c)

Explanation - The sequence of the series 7, X, 21, 31, 43 is as follows -

So the missing number is 13.

Q.5. Which number is not correct in the given series?

    1, 9, 36, 81, 99, 121

    (a) 1   (b) 121

    (c) 36   (d) 99
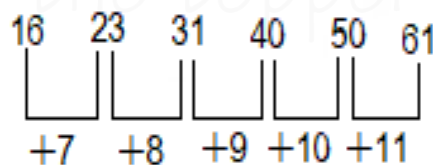
    Ans. (d)

Explanation – The given series is a series of squares of numbers. So 99 is not proper.

Q.6. The missing number (?) in the series 16, 23, ?, 40, 50, 61 is?

    (a) 30   (b) 31

    (c) 35   (d) 28

    Ans (b)

Explanation

ANALOGY

Similarity or similarity is the relation or similarity of any object, word, letter, number to any other object, word, letter, number with quality, form, shape, type, character, etc.

Generally, these types of questions are asked under analogy.

Type 1 - Hindi word analogy

Under this, considering the relation of Hindi words given in the questions asked, one has to find such a word from the given answer options, whose relation can be established with the given words or with the third word.

(i) Finding similar words: - Considering the relation of two words given in the questions asked under this, one has to find such word from the answer options, whose relation is established with the given third word.

Ex.1 Select the related word from the given alternatives.

River : Stream : : Ocean : ?

(a) Current   (b) Pond

(c) Dam   (d) Sea

Ans. **(a)**

Sol. Just as a stream originates from the water of a river, in the same way a current arises from the water of the ocean.

Ex.2 The way Colombo is related to Sri Lanka, in the same way Kathmandu is related to?

(a) Tibet   (b) India

(c) Bhutan   (d) Nepal

Ans. **(d)**

Sol. Just as Colombo is the capital of Sri Lanka, in the same way, Kathmandu is the capital of Nepal.

(ii) Finding the identical pair :- In the questions that come under this, two words are given, which are related to each other in some way. Exactly the same type of relation is also in any one of the options given below.

Ex.3 Select the related word pair from the given alternatives.

Preamble : Constitution : : ? : ?

(a) Word : dictionary

(b) Theme : Magazine

(c) Explanation : Poem

(d) Introduction : Book

Ans. **(d)**

Sol. Just as there is a preamble of the constitution, in the same way there is a preamble of the book.

(iii) **Choosing similar words and special classes for similar words -**

Some words are given in the questions coming under it. You have to choose a word from the given alternatives which is exactly same as the word given in the beginning and find the word which shows the particularity among the words given in the question.

Ex.4 Who is the same as - Earthquake, cyclone, volcanic eruption

(a) Global heat

(b) Flood

(c) Accidents

(d) Nuclear explosion

Ans. **(b)**

Sol. Just as earthquakes, cyclones and volcanic eruptions are natural disasters. Similarly, floods are also a natural disaster.

Ex.5 Given below three words, which have some common features, select the correct option.

Snake, lizard, crocodile

(a) Reptiles   (b) Mammals

(c) Omnivores   (d) Deer

Ans. **(a)**

Sol. Snake, Lizard and Crocodile are all three reptiles.

Ex.6 Find the alternative which has the same relation as in all the three words given below.

King, Queen, Palace

(a) Pigeon, bird, dispensary

(b) Goat, goat, fort

(c) Bumblebee, spider, water

(d) Lion, lioness, cave

Ans. **(d)**

Sol. Just as both the king and queen reside together in the palace, in the same way both the lion and the lioness reside together in the cave.

(iv) Double Symmetry:- Under this, two words are given on the left and right of the symbol (::) in the question. Each word is missing in both the words.

The missing word has to be found from the options given below.

Ex.7 In the following question, find out the missing word from the alternative given below

A : Ugly : : Peace : B

(a) A – Beautiful, B – War

(b) A – Friendship, B – Noise

(c) A – Honesty, B – Treaty

(d) A – Number, B – Strike

Ans. **(a)**

Sol. Just as, beautiful and ugly are opposite words of each other. Similarly, peace and war are also opposite words to each other.

Type - 2 English Alphabets Analogy

The questions under this are based on letters or letter groups of the English alphabet. After knowing the relationship of the first two letter-groups given in these questions, on this basis, the correct answer for the third letter-group has to be found from the options.

Vowels and Consonants of English Letters:-

Vowel Letters –   A, E, I, O, U

Consonant Letter –   B, C, D, F, G, H, J, K, L, M, N, P, Q, R, S, T, V, W, X, Y, Z

English alphabets their corresponding numbers :-

English Alphabet   A B C D E F G H I J K L M

Corresponding No. 1 2 3 4 5 6 7 8 9 10 11 12 13

Ex.8 CHAIR : RIAHC : : TABLE : ?

(a) BLAET   (b) ETABL

(c) LETAB   (d) ELBAT

Ans. **(d)**
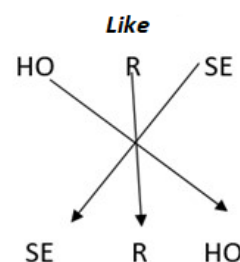
Sol. Like,

CHAIR   ⟶   RIAHC

Similarly,

TABLE   ⟶   ELBAT

Ex.9 HORSE : SERHO : : CURSE : ?

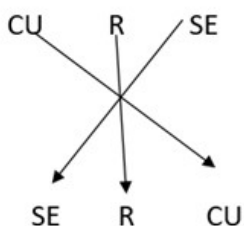(a) RCUES   (b) SECRU

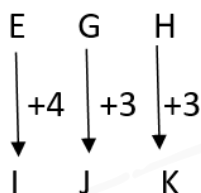(c) SERCU   (d) ERCUS

Ans. **(c)**

Sol.

Similarly,

CU   R   SE

SE   R   CU

Ex.10 EGH : IJK : : NPQ : ?

(a) PRS   (b) RSU

(c) RTU   (d) RST

Ans. **(d)**

Sol.

Like,

E   G   H

+4   +3   +3

I   J   K

Similarly,

N   P   Q

+4   +3   +3
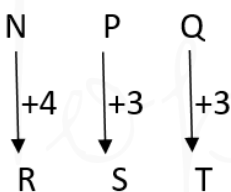
R   S   T

Type - 3 English Word Analogy

The questions under this are based on English words. After finding the relation of the first two words given in these questions, we find out the correct answer for the third word from the options on the same basis.

(i) **Finding Related Words**

Ex.11 In the following question, select the option which is related to the third word in the same way as the second term is related to the first term.

Shallow : Profound : : Synonym : ?

(a) Context   (b) Antonym

(c) Meaning   (d) Content

Ans. **(b)**

Sol. Just as the opposite word of Shallow is Profound, similarly, the opposite word of Synonym is Antonym.

(ii) **To find the word pair similar to the word pair :-**

Ex.12 Which of the following pair of words shows the same relation. What kind of relationship is there between Fan : Heat ?

(a) Water : Drink

(b) Food : Hunger

(c) Light : Night

(d) Air : Breath

Ans. **(b)**

Sol. When there is heat, then the fan is turned on, in the same way food is done when there is hunger.

Type - 4 - Number Analogy

In the questions that come under this, questions are asked based on the order of numbers, the order of the squares of the numbers, the sequence of prime numbers, etc. In other words, the questions asked under it are based on mathematical operations.

Ex.13 Select the option, which is related to the third term in the same way as the second term is related to the first term.

23   69 : 27 : ?

(a) 91   (b) 73

(c) 81   (d) 89

Ans. **(c)**

Sol. Like $23 \times 3 = 69$

Similarly, $27 \times 3 = 81$

Ex.14 Select the related number from the given alternatives.

8   : 32 :: 6 : ?

(a) 31   (b) 22

(c) 18   (d) 21