



GROUP - D

RAILWAY RECRUITMENT BOARD

General Intelligence & Reasoning



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ALPHABET

Alphabet :-

There are 26 letters in an English Alphabet,
A to Z.

Left →													← Right												
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1

(when counted from Z to A)

Place Value
Reverse order

First half → A B C D E F G H I J K L M → 13
(A to M)

Second half → Z Y X W V U T S R Q P O N → 13
(N to Z)

E	J	O	T	Y
5	10	15	20	25

Remember 'EJOTY'

C	F	I	L	O	R	U	X
3	6	9	12	15	18	21	24

'CFILORUX'

Nowels →

A	E	I	O	U
1	5	9	15	21

when at the left of the left letter or right of the right letter is asked, we'll find the difference of their sequence (for same side).

ex example : Which is the 7th letter from the left of the 10th letter from letter from left in english alphabet?

solⁿ Left left
 10 - 7 = 3rd letter

3rd letter = C

when at the left of the right letter or right of the left letter is asked, we'll find the sum of their sequences (for two difference side's sequence)

example : (a) which will be the 8th letter at the right from 12th letter from left.

solⁿ Left + Right
 12 + 8 = 20th letter = T

T will be the 20th letter from left in the english alphabet.

(b) which will be the letter in English Alphabet, which is 7th at left from 12th from right.

solⁿ Here for 2 different sides we add sequence no. of the letters

i.e Right + left
 12 + 7 = 19

So, 19th letter from Right side, we subtract 19 from 27.

$$27 - 19 = 8^{th}$$

8th letters from left side is 'H'

* == When position of letter is asked from right side (Z), we minus from 27. ==

Like 1. R is 18 from left side then what is the position from right side.

Sol.ⁿ $27 - 18 = 9$

R is 9th from Right side in English Alphabet.

Example : which will be the letter in English alphabet, which is 6th at right from 22nd from right?

Sol.ⁿ

Right	-	Right	
22	-	6	= 16

So, 16th letters from right means

$$27 - 16 = 11^{th} \text{ from left. and}$$

K is the 11th letter from left.

Example : Which letter is 10th to Right of 19th letters from Right.

Sol.ⁿ

Right	-	Right	
19	-	10	= 9

So, $27 - 9 = 18 = R$

In short

= At the right from right] (-)
 At the left from left]
 At the left from Right] (+)
 At the Right from left]

↳ 2. When a series of letters symbol digit is given :

Example : Study the following arrangement carefully and answer the following questions :

R4PIJMQ3%T@@UKSVIW\$Y2BEG#9DHOG*ZN

Q1. which is 6th at the left of 15th from the left in above arrangement.

Solⁿ Left - Left
 15 - 6 = 9th from left
 So answer = 9.

Q2 : In the above arrangement ; how many numbers are such which are produced by consonant and not followed by a letter ?

Solⁿ Answer = one

 Q 3 % → not letters.
 ↓ ↓
 consonant number

↳ 3. Arrangement according to Dictionary : In this arrangement, we arrange the letters in the

Orders in which they appear in the English alphabet.

For example : 1. Choose the one that comes at the second place According to Dictionary.

- | | |
|-----------------|--------------|
| A. Bathing | B. Banking |
| C. Backing | D. Banishing |
| E. Barricading. | |

Solⁿ: According to English Dictionary.

Backing Banishing Banking Barricading Bathing
 1 2 3 4 5

So, banishing is at second place.

* 2. How many letters pairs in the word PARADISE are such pairs, which contain the same no. of letters between them as they have in the English Alphabet?

Solⁿ

P	A	R	A	D	I	S	E
19	1	21	1	4	9	22	5

we have 3 letter pairs here.

* 3. If the 2nd half of the English alphabet is written in reverse order, then which letter will be the 13th at right from 8th from left?

Explanation :

According to Question A → M Z → N

A B C D E F G H I J K L M N Z Y X W V U T S R Q P O

$$\text{Now } \overset{L}{0} + \overset{R}{13} = 21$$

So, 21 letters, 13 are from A to M, remaining 8 should be counted from Z to N, which is '8'.

Solved Examples

Q.1 if the second half of the English Alphabet is reversed then which letter will be 4th to the right of 20th letter from the right?

sol: Right - Right

$$\Rightarrow 20 - 4 = 16^{\text{th}} \text{ from Right}$$

$$\text{So } 27 - 16 = 11^{\text{th}} \text{ from left} = \text{K}$$

$$16^{\text{th}} \text{ from Right} = 11^{\text{th}} \text{ from Right}$$

Q.2 which letter is in the middle between the 9th letter from the right and 8th letter from the left in the English Alphabet?

sol: A \rightarrow I

$$8^{\text{th}} \text{ from left} = \text{H}$$

$$9^{\text{th}} \text{ from the right } (27 - 9 = 18 = \text{R})$$

$$\text{So middle letter} = \frac{8 + 18}{2} = 13^{\text{th}} = \text{M}$$

Q.3 A E C B % 7 D \$ E B 5 C ? 3 D E 9 @ 2 # , if all the vowels are dropped from the above arrangement which of the following will be the 12th from the left end of the above arrangement?

sol: After dropping Vowels we have

C B % 7 D \$ B 5 C ? 3 D 9 @ 2 #

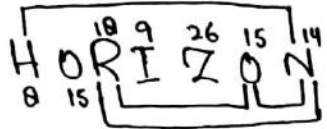
\uparrow
Ans

Q.4 if the sequence of the English alphabet is reversed then which is 7th to the left of second vowel. From the right of English Alphabet in the new series?

sol: Second Vowel from the right of reversed English alphabet is E and 7th letter to the left of E in the new series is L.

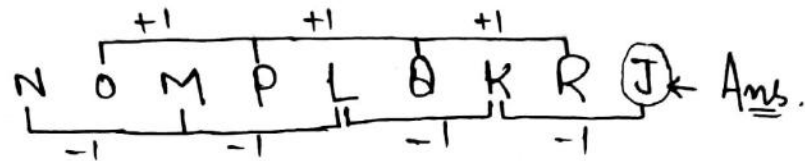
Q.5 How many pairs of letter are there in the word 'HORIZON' which have as many letters between them in the word as in the English Alphabet?

sol:


 = 4 pairs of letters.

Q.6 What is the next letter of the following sequence N, O, M, P, L, Q, K, R, ?

sol:


 Ans.

Q.7 If the first and second letters in the word 'MISFORTUNE' were interchanged, also the third and the fourth letters, the fifth and sixth letters and so on, which letter would then be the eight letter counting to your left?

sol:

New sequence = I M F S R O U ^{8th} T E N

Ans. = T.

Q.8 Arrange the given words in alphabetical order and choose the one that comes in the middle?

sol: According to alphabet order →

shout, skirt, slaughter, specify, straight

middle word = slaughter.

Q.9 If NAMO = 172 and OM = 56, then SHIVAY = ?

sol:

$$NAMO = 14 + 1 + 13 + 15 = 43 \times 4 = 172$$

$$OM = 15 + 13 = 28 \times 2 = 56$$

$$SHIVAY = 19 + 8 + 9 + 22 + 1 + 25 = 84 \times 6 = 504$$

Directions(10-14): study the following arrangement of numbers, letters and symbols carefully and answer the questions given below.

R @ 29 T V A Y 5 @ # J I P 8 Q \$ E 3 * H % 6 W 4 I δ U Z

Q. 10 Four of the following five are alike in a certain way based on their positions in the above arrangement, and so form a group. which is the one that does not belong to the group?

J P @, E * Q, W I %, 9 V @, I # δ

sol: $\begin{array}{ccccc} \text{J} & \text{P} & \text{C} & \text{E} & * & \text{Q} & \text{W} & \text{I} & \% & 9 & \text{V} & @ & \text{I} & \# & \delta \\ \hline & +2 & -4 & +2 & -4 & +2 & -4 & +2 & -4 & -2 & +16 \end{array}$

Ans I # δ

Q. 11 which of the following is the fifth to the right of the 19th element from the right end?

P, V, W, 8, Q

sol: $19 - 5 = 14^{\text{th}}$ element from the right end = Q.

Q. 12 How many such number are there in the given arrangement, each of which is immediately preceded by the consonant and immediately followed by a symbol?

sol: Y S @ → 1 pair

Q. 13 If the positions of the last 18 elements in the given arrangement are reversed, which will be the 17th from the left end?

sol: After arrangement

R @ 29 T V A Y S @ # 2 U S I 4 W 6 % H * 3 E \$ Q P I J

Q. 14 How many such vowels are there in the given arrangement, each of which is either immediately followed by a symbol?

sol:

3 Vowels = E, I and U

Q. 15 How many meaningful words can be formed from the 3rd, 4th, 6th and 8th letter of the word 'CONTROVERSIAL'?

sol:

C O N T R O V E R S I A L
 ↓ ↓ ↓ ↓
 3rd 4th 6th 8th

N, T, O, E → 2 words : Note, Tone
can formed

CODDING - DECODING

Introduction:-

A particular code or pattern that is used to express a word in English language as a different word or in different form. The coded word itself does not make any sense unless we know the pattern or code that has been followed.

Note:-

In order to solve these type of questions we have to learn the place value from A to Z. Like A have place value 1.

Example:- If the coding for 'BRASS' is 'CTBUT' what will be the coding of 'AMIT'?

Solution⇒

+1	+2	+1	+2	+1	
B	R	A	S	S	
↓	↓	↓	↓	↓	
C	T	B	U	T	→ CTBUT

+1	+2	+1	+2	
A	M	I	T	
↓	↓	↓	↓	
B	O	J	V	

[∴ Alternate +1 & +2]

Ans :- BOJV

Example:-

In a certain code language, if the word 'PARTNER' is coded as 'OZQSMDQ' then what is the code for the word 'SEGMENT' in that language?

- (A) TFHNFOU (B) RDFLDMS
(C) RDELDMS (D) RDFEDNS

Solution:-

	-1	-1	-1	-1	-1	-1	-1
<u>Word</u> :-	P	A	R	T	N	E	R
	↓	↓	↓	↓	↓	↓	↓
code →	O	Z	Q	S	M	D	Q

sly

	-1	-1	-1	-1	-1	-1	-1
Word :-	S	E	G	M	E	N	T
	↓	↓	↓	↓	↓	↓	↓
	R	D	F	L	D	M	S

Example:- If Code for

UNDER → 6152 @

DEAF → 52 #7

What is the code for FRAUD?

- (a) 7@ #65 ✓ (b) 765 @ #
(c) 7# 65 (d) # 765

Solution :-

U N D E R \rightarrow 8 1 5 2 @

D E A F \rightarrow 5 2 # 7

F R A U D \rightarrow 7 @ # 6 5

 \rightarrow solution

$\left\{ \begin{array}{l} F \rightarrow 7 \\ R \rightarrow @ \\ A \rightarrow \# \\ U \rightarrow 6 \\ D \rightarrow 5 \end{array} \right\}$

Example :-

If the code for.

hope to see you \rightarrow te so na di

Please Come to see the party \rightarrow fi ga na di ki zo.

hope to Come \rightarrow di so ga

see you the party \rightarrow re fi zo na

solution :-

In order to solve the question we have to find the common words in both left & right.

hope is in 1st & 3rd line \rightarrow so

to \rightarrow di

see \rightarrow na

you \rightarrow re

the party \rightarrow ofi/zo [it can be anything]

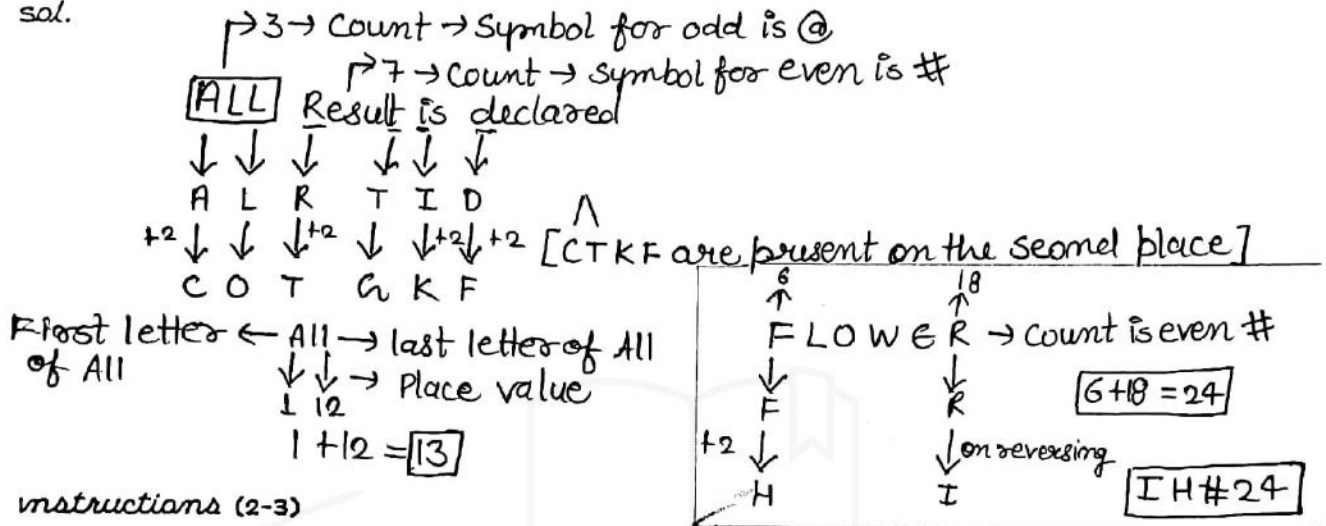
Come \rightarrow ga.

"All result is declared" is coded as "WF#8 HK#28 GT#38 OC@13"
 "its time now start" is coded as "GU@39 DP@37 VV#25 HK@28"
 "Prepare for better future" is coded as "VR@21 IH@24 ID#20 VH#11"
 "Try again this immediate" is coded as "VK@14 HV#390 BV@45 MC@15"

Q.1 Now what is the code for "Flower in the given language"?

- (a) HU@38 (b) UH#38 (c) IH#24 ✓ (d) HU#38

sol.



Instructions (2-3)

if digit 6 1 5 7 0 2 4 9 8 3 is coded as S H L V F D K Q M P then:

- if the first digit is even and the last digit is odd, they are coded as % and @ respectively.
- if the first digit is odd and the last digit is even, they are coded as # and * respectively.
- if 0 is preceded as well as followed by an odd digit, then 0 is to be coded as &.
- if 0 is preceded as well as followed by even then 0 is to be coded as ^.
- 0 is not considered as either even or odd.

Q.2 what will be code for 4 9 7 6 7 9 5

- (a) % Q V S V Q L (b) K Q V S V Q @ (c) % Q V S V S @ ✓
 (d) NONE OF THESE

sol.

4 9 7 6 7 9 5
 ↓ ↓ ↓ ↓ ↓ ↓
 % Q V S V Q @

Q.3 what will be code of 7 6 5 0 2 4 9

- (a) # L S V F K * (b) V L S K M ^ (c) V L S V F K Q (d) None of these ✓

sol. Because no conditions met

7 6 5 0 2 4 9
 ↓ ↓ ↓ ↓ ↓ ↓
 V S L F D K Q

Instructions : identify the logic of pattern and answer the questions:-

C B A I - 8 6 8 6

V O G F - 5 25 2 25

A I R E - 10 15 10 15

W T P Y - 2 10 10 2

R P T O - 8 6 8 6

E L M I - 10 15 10 15

F R A P - 2 10 10 2

A H A H - 5 25 5 25

Q. 4 what will be value of U R B A?

(a) 8 6 8 6

✓(b) 10 15 10 15

(c) 5 25 5 25

(d) None of these

sol. 8 6 8 6 - C B A I → vowel

5 25 5 25 - U O G F
vowel ← consonant

10 15 10 15 - A I R E
vowel ← vowel

2 10 10 2 - W T P Y
consonant consonant

U R B A → 10 15 10 15
↓ ↓
vowel vowel

'visual effects of colours' is coded as " C11 F73 T86 K93"

'visual for one's eye' is coded as " T86 L23 N27 M18"

'Retinal detachment curtain effects' is coded as " B15 K93 G14 S21"

'Areas for vision development' is coded as " A10 H 32 Y16 L23"

Q. 5 which among the following options can be used for getting the code of eye?

(i) L23 T86 Y16

H32

(ii) N27 M18 L23

A10

(iii) F73 M18 L23

G14

(iv) S21 B15 T86

N27

(v) None of these

(a) only (i) and (ii)

(b) only (ii) and (iii)

✓(c) only (iii) and (iv)

(d) only (iv) and (v)

(e) only (ii) and (iv)

sol. On Comparing both left and right

Visual - T86

effects - K93

for - L23

eye - N27/M18 → These option should be present only one in the option to get code for 'eye'.