

LearnFrenzy

CodingDecoding

Writing any information in a secret form using some symbols instead of writing it in normal language is called 'coding'. The information can be in the form of words, letters, numbers, sentences or any other form and to change it, any number, letter, word or other symbols can be used based on a specific pattern.

Coding/Encoding (Coding)

When any general meaningful information is converted into meaningless words, letters, symbols or any other medium through any specific rule, then this process is called 'coding' or 'encryption'.

For example – MOHAN = 13, 15, 8, 1, 14

Where each letter of the word MOHAN is represented by its serial number in the English alphabet because in the English alphabet, the number of M is 13, O is 15, H is 8, A is 1 and N is 14.

Decoding

When any meaningless word, letter, symbol or other thing is converted back into meaningful information, word or letter through any special rule, then this process is called 'decoding'.

For example – 13, 15, 8, 1, 14 = MOHAN

Where the numbers 13, 15, 8, 1, 14 form the meaningful word 'MOHAN' by the letters of the English alphabet in their respective order.

From the above points made so far in this chapter, it is clear that the most important role in solving the questions is to identify the specific rule through which 'coding' or 'decoding' has been done.

There are unlimited number of rules for 'coding' or decoding and memorizing them all is an impossible task. However, the following points can be kept in mind which are primarily useful and help in solving questions easily:

1. Serial Number of All

Letters of English Alphabet

Letter	A	B	C	D	E	F	G	H	I	J	K	L	M
Ser. No.	1	2	3	4	5	6	7	8	9	10	11	12	13
Letter	Z	Y	X	W	V	U	T	S	R	Q	P	O	N

Ser. No.	26	25	24	23	22	21	20	19	18	17	16	15	14
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Hence, MOHAN = 13, 15, 8, 1, 14 can be easily found.

Simple ways to Memorize the English Alphabet

'By remembering the word "EJOTY" we can find the serial number of all the letters. The serial numbers of the letters of the word EJOTY are as follows-

E	J	O	T	Y
↓	↓	↓	↓	↓
5	10	15	20	25

(These are in multiples of 5)

Example:

- What is the 17th letter from the left in the English alphabet?

Sol. The word EJOTY indicates that

$$O = 15$$

$$\therefore 15 + 2 = 17$$

$$\therefore O + 2 = Q$$

Hence, Q will be the 17th letter from the left in the English alphabet.

- What is the position number of R from the left in the English alphabet?

Sol. The nearest letter to R in EJOTY is O which we know is position number 15 i.e.

$$O + 3 = R$$

$$\Rightarrow 15 + 3 = 18$$

Hence, the position number of R from the left in the English alphabet is 18.

Another simple way to remember the serial number of letters of the English alphabet is 's' 'CFILORUX'. It is in the form of multiples of 3 like-

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

Example:

- What is the 23rd letter from the left in the English alphabet?

Sol. With the help of 'CFILORUX' we know that:

$$'X' = 24$$

$$\therefore 24 - 1 = 23$$

$$\therefore X - 1 = W$$

So, the 23rd letter from the left in the English alphabet will be 'W'.

2. What is the position of K from the left in the English alphabet?

Sol. In CFILORUX, two places before K is the letter I, whose position number is 9 i.e. $I + 2 = K$

$$\Rightarrow 9 + 2 = 11$$

So, the position of K from the left in the English alphabet is 11.

2. Reverse Order of All Letters in English alphabet

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

Hence, YTPL = 2, 7, 11, 15 which are the reverse numbers of the letters.

Simple Way to Remember Reverse Order of Letters of English Alphabet

To find the serial number from the opposite place i.e. from the right side, the serial number has to be subtracted from 27 from the left side.

Opposite serial number = $27 - \text{serial number from left side}$

$$\text{For example- } R = 27 - 18 = 9$$

3. Opposite Letter of All Letters of English Alphabet

Remembering the opposite letter of each letter of the English alphabet also helps in solving coding-decoding questions. The opposite letters are as follows-

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

The following simple method can also be adopted to remember the opposite letters. Which is as follows in the form of a simple sentence-

"UF BY LOVE, PK MN JQ, SHIRT, CX, DW"

U F	B Y	L O	V E	C X
उ फ	बा ई	ल व		सी एक्स
P K	M N	J Q		
पी के	में	जे क्यू		
S H	I R	T G	A Z	D W
	श र्ट		गे ज	डी डब्ल्यू

Another method to find the opposite letters is the 'Sum Method', with the help of which the opposite letter can be found. If the sum of the serial numbers of the letters of the English alphabet is 27, then those letters are opposite to each other.

$$\text{Example: } M = 13$$

$$N = 14$$

$$M + N = 13 + 14 = 27$$

Thus, M and N are opposite letters to each other.

Example: What will be the opposite letter of the letter P in the English alphabet?

$$\text{Sol. } P = 16$$

$$\Rightarrow 27 = 16 + 11$$

The letter coming at the 11th position is 'K'.

So the opposite letter of letter P will be K.

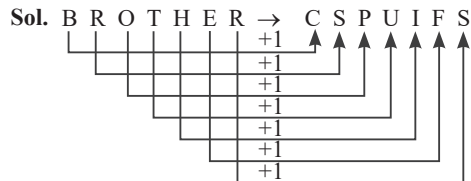
Class-1 : Letter Encoding

In this type of category, one has to understand on which pattern the coded letter is based. There are many types of questions under this category. Like-

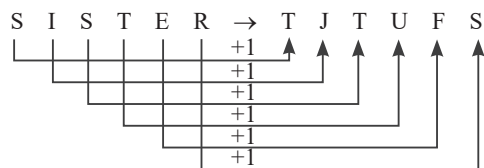
Type-1: Letters Moving from Their Place

Example:

1. If in a code language 'BROTHER' is written as 'CSPUIFS' then how will 'SISTER' be written in the same code language?



In this, each letter of the symbol (BROTHER) has moved forward (+1) by one place from its position in the English alphabet. Similarly,



Hence, SISTER will be written as 'TJTUFS' in the same code language.

2. If in a certain code 'CHAIR' is written as 'DIBJS' then how will 'TABLE' be written in the same code?

Sol. C H A I R → D I B J S

Each letter of the word CHAIR is moved forward one serial number (+1) from its sequence. Similarly,

T A B L E → U B C M F

Hence TABLE will be written as 'UBCMF' in the same coding.

Type-2: Letters moving backwards from their places

Example:

1. If in a code language 'GLOBE' is written as 'FKNAD' then how will 'EARTH' be written in the same code language?

Sol. G L O B E → F K N A D

In this, each letter of the word GLOBE has been shifted one place back (-1) from its position in the English alphabet. Similarly,

E A R T H → D Z Q S G

Hence each letter of the word EARTH will also be shifted one place (-1) behind its order, then the required code will be 'DZQSG'.

2. If in a code language 'HISTORY' is written as 'GHRSNQX' then how will the word 'POLITY' be written in the same code language?

Sol. H I S T O R Y → G H R S N Q X

Each letter of the word 'HISTORY' is displaced by its first serial letter in the English alphabet i.e. shifted one place backward. Similarly,

P O L I T Y → O N K H S X

So, each letter of the word 'POLITY' will be replaced by the letter before its serial number in the English alphabet and the code 'ONKHSX' will be obtained.

Type-3: Letters of the English alphabet being two or more places ahead or behind their positions

Example:

1. If in a code language the word 'CLEAR' is written as 'ENGCT' then how will the word 'VERBAL' be written in the same code language?

Sol. C L E A R → E N G C T

In this, each letter of the word 'CLEAR' is displaced by the letter placed two places ahead (+2) of its position in the English alphabet. Similarly,

V E R B A L → X G T D C N

So, each letter of the word 'VERBAL' will be displaced by the letter two places ahead (+2) of its serial number and the code 'XGTDNC' will be obtained.

2. If in a code language the word 'PERFECT' is written as 'NCPDCAR' then how will the word 'SCRIPT' be written in the same code language?

Sol. P E R F E C T → N C P D C A R

Each letter of the word 'PERFECT' is displaced by the letter two places before (-2) its position in the English alphabet, similarly;

S C R I P T → Q A P G N R

So, each letter of the word 'SCRIPT' will also be replaced by the letter two places before (-2) its serial number in

the English alphabet and the code 'QAPGNR' will be obtained.

3. If in a code language the word 'CLEAR' is written as 'HQJFW' then how will the word 'NORMAL' be written in the same code language?

Sol. C L E A R → H Q J F W

In this, each letter of the word 'CLEAR' is displaced by the fifth letter ahead of its serial number in the English alphabet. Similarly,

N O R M A L → S T W R F Q

Hence, each letter of the word 'NORMAL' will also be displaced by the letter five places ahead (+5) of its serial number and we get 'STWRFQ'.

4. If in a code language the word 'LIGHT' is written as 'GDBCO' then how will the word 'XYLON' be written in the same code language?

Sol. L I G H T → G D B C O

In this each letter of the word 'LIGHT' has been displaced by the letter five places before (-5) its serial number in the English alphabet, similarly;

X Y L O N → S T G J I

So, each letter of the word 'XYLON' will be replaced by the letter five places before (-5) its serial number and we get 'STGJI'.

5. If in a code language the word 'BROTHER' is written as 'GOTQMBW' then how will the word 'RIPSLE' be written in the same code language?

Note: If gap between letters is more, we can also find out the rule used by writing their serial numbers.

Sol. B R O T H E R → G O T Q M B W

Here 5 is added and 3 is subtracted respectively in the letters of the word 'BROTHER' and the word 'GOTQMBW'

is obtained. Similarly,

R I P S L E → W F U P Q B

Hence, the letters of the word 'RIPSLE' will also be replaced by the letters obtained by adding five (+5) and subtracting three (-3) respectively and we get 'WFUPQB'.

Type-4: Change in position of letters

In this type of questions, the letters of a word just change their position. There is no guessing of the serial number of the alphabet.

Example:

1. If in a code language the word 'ORGANISATION' is written as 'NOITASINAGRO' then how will the word 'INTERNATIONAL' be written in the same code language?

Sol. By writing the letters of the word ORGANISATION in reverse order we get NOITASINAGRO. Similarly,

I N T E R N A T I O N A L

↓

L A N O I T A N R E T N I

The required word LANOITANRETNI is obtained.

2. If in a code language the word 'CENTURYS' is written as 'ECTNRUSY' then how will the word 'AMRITSAR' be written in the same code language?

Sol. CENTURYS → ECTNRUSY

In the above word, every two letters have been interchanged. Similarly, in the word AMRITSAR, every two letters are interchanged.

AMRITSAR → MAIRSTRA

The required word 'MAIRSTRA' is obtained.

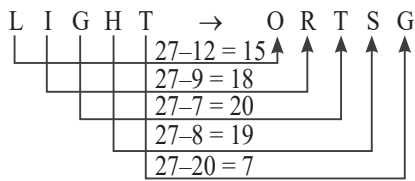
Type-5: Replacement of letters of words by opposite letter-

Example:

1. If in a code language the word 'HINDU' is written as 'SRMWF' then how will 'LIGHT' be written in the same code language?

Sol. H $\frac{27-8=19}{\rightarrow}$ S
I $\frac{27-9=18}{\rightarrow}$ R
N $\frac{27-14=13}{\rightarrow}$ M
D $\frac{27-4=23}{\rightarrow}$ W
U $\frac{27-21=6}{\rightarrow}$ F

In the above, each letter of the word HINDU has been replaced by its opposite letter. Similarly



Hence the required word will be obtained ORTSG.

Type-6: Encoding based on similarity of letters

Example: If the word 'SELDOM' is written as 'PGOKMT' in a code language then how will the word 'SOLE' be written in the same code language?

Sol. SELDOM → PGOKMT

There is no fixed rule of proportion in the given words. Only each letter is represented by a particular letter.

For example:

S	E	L	D	O	M	or	S	O	L	E
↓	↓	↓	↓	↓	↓		↓	↓	↓	↓
P	G	O	K	M	T		P	M	O	G

You will receive the required code PMOG.

Class-2: Number Encoding

In such questions, the letters of the words are represented by numbers but it is not necessary that the numbers represented are related to the alphabetical order of the letters. There are many types of questions in this category-

Type-1: Representation of letters by numbers

Example: If in a code language the word 'SELDOM' is written as '351246' and 'MINDA' is written as '67928' then how will the word 'DIAMOND' be written in the same code language?

Sol. S E L D O M and M I N D A

↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
3	5	1	2	4	6	6	7	9	2	8

Both the words have common letters M and D. For which numbers 6 and 2 are given respectively i.e. here letters are represented by numbers only; no specific numbering is followed. So DIAMOND will be written as 2786492.

Type-2: Mathematical method for letter representation-

Example:

- If in a code language the word 'HOME' is written as '41' and 'HOUSE' is written as '68' then how will 'OFFICE' be written?

Sol. Just as HOME = $8 + 15 + 13 + 5 = 41$

And HOUSE = $8 + 15 + 21 + 19 + 5 = 68$

Similarly OFFICE = $15 + 6 + 6 + 9 + 3 + 5 = 44$

Hence OFFICE will be written as 44.

- If in a code language the word 'PHONE' is written as '116' and 'SIM' is written as '82' then how will the word 'MOBILE' be written in the same code language?

Sol. Just as

$$\text{PHONE} = 16 + 8 + 15 + 14 + 5 \Rightarrow 58 \times 2 = 116$$

$$\text{SIM} = 19 + 9 + 13 \Rightarrow 41 \times 2 = 82$$

Similarly,

$$\text{MOBILE} = 13 + 15 + 2 + 9 + 12 + 5 \Rightarrow 56 \times 2 = 112$$

Hence the code MOBILE will be written as 112.

- If in a code language the number '125' is written as '64' and the number '221' is written as '25', then how will the number '343' be written in the same code language?

Sol. Just as $125 = (1 + 2 + 5)^2 = (8)^2 = 64$

$$\text{and } 221 = (2 + 2 + 1)^2 = (5)^2 = 25$$

Similarly,

$$343 = (3 + 4 + 3)^2 = (10)^2 = 100$$

Hence 343 will be written as 100 in the same code language.

Class-3 : Encryption by symbols

In such questions, letters of a word are represented by some particular symbol.

Example:

- If in a code language the word 'MALE' is written as '\$ % 37' and the word 'SMILE' is written as '₹ \$ # 37', then how will the word 'SIMA' be written in the same code language?

Sol. Similarly,

M → \$	and	S → ₹
A → %		M → \$
L → 3		I → #
E → 7		L → 3
		E → 7

Similarly, S → ₹

I → #

M → \$

A → %

Hence the word SIMA will be written as '₹ # \$ %'.

- If in a code language the word 'COMES' is written as '₹ 3 @ 6 %' and 'WELCOME' is written as '# 6 × ₹ 3 @ 6' then how will the word 'COWS' be written in the same code language?

Sol. In the same way,

C	O	M	E	S	Or	W	E	L	C	O	M	E
↓	↓	↓	↓	↓		↓	↓	↓	↓	↓	↓	↓
₹	3	@	6	%		#	6	×	₹	3	@	6

Similarly, C O W S

↓ ↓ ↓ ↓
₹ 3 # %

Hence the word COWS will be written as '₹ 3 # %'.

Class-4: Representation of Letters by Numerical Value

In such questions, letters of a word are given specific numerical values and the word/letter group or kit number group is found out.

Example: If in a certain code C = 8, D = 9, E = 10 and F = 11 then which word will be formed from the numbers 17, 21, 12, 19 and 7?

Sol. If we look carefully at the letters given in the question, the numbers have been represented by adding 5 to their serial number. Therefore, to get the desired number, the letters can be obtained by subtracting 5 from the given number.

For Example: $17 - 5 = 12 = L$

$21 - 5 = 16 = P$

$12 - 5 = 7 = G$

$19 - 5 = 14 = N$

$7 - 5 = 2 = B$

The required word will be 'LPGNB'.

Class-5 : Encoding by Substitution of Words

In coding by substitution of words, one word is replaced by another word. After that questions related to a word are asked. For example:

Example:

1. If 'water' is called 'food', 'food' is called 'tree', 'tree' is called 'sky' and 'sky' is called 'wall', then where will the 'fruits' grow?

Sol. Generally fruits grow on trees, now the important thing to note here is what is said about the tree in the statement,

Water → Food → Tree → Sky → Wall

Here tree has been called sky. Hence the fruits will grow in the sky.

2. If 'water' is called 'black', 'black' is called 'tree', 'tree' is called 'blue', 'blue' is called 'rainbow', 'rainbow' is called 'pink' and 'pink' is called 'Jaipur' then what will be the colour of the 'sky'?

Sol. Generally the colour of the sky is blue but now the important thing to note here is what has been called blue in the statement.

Water → Black → Tree → Blue → Rainbow → pink → Jaipur

Here blue is called rainbow. So the color of the sky will be a rainbow.

Class-6 : Encryption as Per Given Conditions

In this type of questions, a group of letters/digits is developed by a symbol/digit and some conditions are given separately. Questions are answered by complying with both. Like—

Instructions: Following the conditions and table given below, tell what is the correct representation of the group of letters given in the question?

- Conditions:**
1. If the first letter is a vowel and the last letter is a consonant then both are to be denoted as ₹.
 2. If the first letter is a consonant and the last letter is a vowel then both will be represented by @.

Letter	E	M	A	P	X	O	K	I
Number code	3	9	7	6	4	1	5	2

Example:

1. What will be the correct representation of the letter group 'OMXEPK' following the above conditions?

Sol. As per the first condition :

O	M	X	E	P	K
↓	↓	↓	↓	↓	↓
₹	9	4	3	6	₹

2. What will be the correct representation of the letter group 'KAXMIO' as per the conditions given in the instructions?

Sol. According to the second condition-

K	A	X	M	I	O
↓	↓	↓	↓	↓	↓
@	7	4	9	2	@

Class-7 : Decoding of rearrangement of words

In this type of questions, the words or a particular group of words of a given sentence are rearranged in different ways. For example-

Example: If in a certain code language 'On a day of high drama as he is widely know' is written as 'He know widely on day as high a drama is of', then how will 'Ousted tata sons chairman cyrus mistory has asked the centre to' be written in the same code language?

Sol. In the same way,

On	a	day	of	high	drama	as	he	is	widely	know
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
1	2	3	4	5	6	7	8	9	10	11

He	know	widely	on	day	as	high	a	drama	is	of
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
8	11	10	1	3	7	5	2	6	9	4

Similarly,

Ousted	tata	sons	chairman	cyrus	mistory	has	asked	the	centre	to
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
1	2	3	4	5	6	7	8	9	10	11

Asked to centre ousted sons has cyrus tata mistory the chairman

↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
8	11	10	1	3	7	5	2	6	9

Class-8 : Mixed Encoding

In this type of coding, different types of coding are done such as one sentence is encoded as another sentence. There are many such sentences, then the code word of one or two words is asked from them.

Example: If in a code language 'lmn npc spa' means 'grows carrot red', 'adr spa gpa' means 'colour bright grows' and 'lmn gpr' means 'red rose', then which code is used for 'red' in the same code language?

Sol. lmn npc spa → grows carrot red → I

adr spa gpa → colour bright grows → II

lmn gpr → red rose → III

The common word in I and III is red and 'lmn' is also common in both. So lmn will be the code for red.

Practice Questions

- If in a code language the word 'STUDENT' is written as 'TUVFOU' then how will 'TEACHER' be written in the same language?
 - REHCAET
 - UFBDIFS
 - UFDBFIS
 - ETCAEHR
- If in a code language the word 'VERBAL' is written as 'WFSCBM' then how will 'CHAPTER' be written in the same language?
 - DIQBUFS
 - RETPAHC
 - DIBQUFS
 - DIBUQFS
- If in a code language the word 'STABILISE' is written as 'UVCDKNKUG' then how will 'MONUMENT' be written in the same language?
 - OQPWOGPV
 - QPOWOGPV
 - NPOVNFOU
 - None of these
- If the word 'MAYOR' is written as 'OCAQT' in a code language then how will 'GOLDEN' be written in the same code language?
 - IQNFGP
 - HPMEFO
 - INQFGP
 - NEDLOG
- If in a code language 'PLATE' is written as 'SODWH' then how will 'NOBLE' be written in the same code language?
 - OPCMF
 - QEROH
 - PQDNG
 - QREOH
- If in a certain code language 'HOUSE' is written as 'LSYWI' then how will the word 'BOARD' be written in the same language?
 - ERDUG
 - FSEVH
 - CPBSE
 - None of these
- If in a code language 'ORANGE' is written as 'TWFS LJ' then how will the word 'MANGOS' be written in the same code language?
 - RFRLTW
 - RFSLTJ
 - SFRKTX
 - None of these
- If in a code language 'HORSE' is written as 'HPTVI' then how will 'LIONS' be written in the same code language?
 - LJQQW
 - MJPOT
 - ILOSN
 - None of these
- If in a code language 'SATYAM' is written as 'RZSXZL' then how will 'INFOSYS' be written in the same code language?
 - JOGPTJT
 - HMNEHRX
 - HMFNXHR
 - None of these
- If in a code language 'BHOPAL' is written as 'AGNOZK' then how will 'JAIPUR' be written in the same code language?
 - IZHOTQ
 - IZHOQT
 - KBJQVS
 - None of these
- If in a code language 'TIGER' is written as 'RGECP' then how will 'FOREST' be written in the same code language?
 - ENQDRS
 - DMCPQR
 - DMPQQR
 - DMPQCR
- If in a certain code language 'WATER' is written as 'UWRAP' then how will 'JUICE' be written in the same language?
 - HSGYC
 - HQGAC
 - QHCGY
 - HQGYC
- If in a code language 'FRIDAY' is written as 'COFAXV' then how will 'SUNDAY' be written in the same language?
 - QQKADV
 - PRKAXV
 - TVOEBZ
 - None of these
- If in a code language 'INPUT' is written as 'EJLQP' then how will 'METHOD' be written in the same code language?
 - IAPDKA
 - JAPDKZ
 - IAPDKZ
 - IBQCKA
- If in a code language 'STOP' is written as 'NOJK' then how will 'PINK' be written in the same language?
 - KDIE
 - KEIF
 - LDIF
 - None of these
- If in a certain code language 'ZOOLOGY' is written as 'ZNMKBKS' then how will 'HISTORY' be written in the same language?
 - QQHHKMS
 - HHQQKMS
 - HQHKKMS
 - GHQQKMS

17. If in a code language 'NUMBER' is written as 'PSOZGP' then how will the word 'DIGITS' be written in the same language?
 (1) FIGIVQ (2) EGIGVQ
 (3) FGIGVQ (4) FGHGUR
18. If in a code language 'MOTHER' is written as 'OMHTRE', then how will the word 'FAVOUR' be written in the same language?
 (1) AFWPVR (2) AFOVRU
 (3) RUOVAF (4) VAFRUO
19. If in a code language 'CAUTIOUS' is written as 'TUACSUOI' then how will 'MERCHANT' be written in the same language?
 (1) CREMTNAH (2) EMCRAHTN
 (3) TNAHCREM (4) NFSDIBOU
20. If in a code language 'NUMERICAL' is written as 'LACIREMUN' then how will 'BEAUTIFUL' be written in the same code language?
 (1) UAEBTLUFI (2) EBUATFILU
 (3) LUFITUAEB (4) None of these
21. If in a code language 'ALIGARH' is written as 'HRAGILA' then how will 'LUCKNOW' be written in the same code language?
 (1) WONKCUL (2) WOKNCUL
 (3) WONCKUL (4) WONKUCL
22. Ramesh got the word 'INDUSTRY' by decoding a coded word 'YRTSUDNI', what word will be obtained from 'TCUDORP' under the same decoding rule?
 (1) CTDUROP (2) PRODUCT
 (3) DUCTPRO (4) None of these
23. If in a code language 'STOP' is written as 'HGLK' then how will 'DOWN' be written in the same language?
 (1) LWDM (2) NWOD
 (3) ODNW (4) WLDM
24. If in a code language 'STUDENT' is written as 'HGFVVMG' then how will 'SCHOOL' be written in the same language?
 (1) HYSLOL (2) HZSLOO
 (3) HXSLLO (4) None of these
25. If in a code language 'CHAIR' is written as 'XSZRI' then how will 'TABLE' be written in the same code language?
 (1) GZYOX (2) GZXOY
 (3) UBCMF (4) None of these
26. If in a certain code language 'INDIA' is written as '914491' then how will 'ENGLAND' be written in the same language?
 (1) 5147121144 (2) 5714121414
 (3) 5174121144 (4) None of these
27. If in a certain code language 'LONDON' is represented as '12151441514' then how will 'WASHINGTON' be written in the same language?
 (1) 2311989148201513 (2) 2311879147211514
 (3) 2411989137202514 (4) None of these
28. If in a certain code language 'MOTHER' is represented by '1416219619' then how will 'FAMILY' be represented in the same language?
 (1) 611391225 (2) 7214101326
 (3) 721391226 (4) 611491325
29. If in a code language 'WELCOME' is written as '22411214124' then how will 'THANKS' be written in the same language?
 (1) 2081141119 (2) 2192151220
 (3) 1970131018 (4) None of these
30. If in a code language 'SAMSUNG' is coded as '1921522251913', then how will 'MOTOROLA' be written in the same language?
 (1) 131622182220188 (2) 1318221620187
 (3) 131520151815121 (4) None of these
31. If in a certain code language 'LUCK' is written as '1562416' and 'GATE' is written as '2026722' then how will 'BEST' be written in the same language?
 (1) 262388 (2) 251920
 (3) 141819 (4) 252287
32. If in a code language 'GOLD' is written as '38' and 'BOOK' is written as '43' then how will 'LION' be written in the same code language?
 (1) 48 (2) 50
 (3) 52 (4) 60
33. If in a certain code language 'CENTURY' is written as '106' and 'STAR' is written as '58' then how will 'HUNDRED' be written in the same language?
 (1) 74 (2) 76
 (3) 78 (4) 72
34. If in a certain code language 'MADRAS' is written as '56' then how will 'CHENNAI' be written in the same language?
 (1) 56 (2) 54
 (3) 58 (4) None of these
35. If the order of letters is $A \Rightarrow 2, B \Rightarrow 3, C \Rightarrow 4$ and so on, then which word will be used for the numbers 8, 6, 16, 13, 16, 8, 26?
 (1) ZOOLOGY (2) BIOLOGY
 (3) PSYCHOLOGY (4) GEOLOGY
36. If the order of letters is $A \Rightarrow 0, B \Rightarrow 1, C \Rightarrow 2$ and so on, then which word will be used for numbers 12, 14, 19, 7, 4, 17?
 (1) LNSGDQ (2) MOTHER
 (3) NPRHER (4) FATHER
37. If the code of 'HARDWORK' is 9, 2, 19, 5, 24, 16, 19, 12 then how will 'EXAMINATION' be coded?
 (1) 5,2,4,1,13,9,14,1,20,9,1,5,14
 (2) 4,2,3,0,12,8,13,0,19,8,14,13
 (3) 6,25,2,14,10,15,2,21,10,16,15
 (4) None of these

38. If in a code language 'MOHAN' is written as '56237' and 'UMA' is written as '853' then how will 'HANUMAN' be written in the same code language?
 (1) 2378537 (2) 81142113114
 (3) 3728537 (4) None of these
39. If in a code language 'ROSE' is written as '6821', 'CHAIR' is written as '73456' and 'PREACH' is written as '961473' then how will 'SEARCH' be written in the same code?
 (1) 214763 (2) 214673
 (3) 214676 (4) 142673
40. If in a certain code 'SEARCH' is written as '5', 'STOP' is written as '3' and 'MOTIVATION' is written as '9' then how will 'HANDWRITING' be written in the same code?
 (1) 11 (2) 9
 (3) 12 (4) None of these
41. If in a code language 'TOM = 12' and 'DICK = 9' are written then how will 'HARRY' be written in the same language?
 (1) 8 (2) 7
 (3) 6 (4) 9
42. If in a certain code language 'LOVE' is written as '27' and 'GIRL' is written as '23' then how will 'BREAKUP' be written in the same code?
 (1) 74 (2) 11
 (3) 37 (4) None of these
43. If $A = Y = 1$, $B = S = 2$, $N = P = 3$, $O = E = 4$, $R = G = 5$ then the sum of which of the following will form an odd number?
 (1) PAPAYA (2) ORANGE
 (3) BANANA (4) GRAPES
44. If in a code language 'PEN' is written as '123', 'PENCIL' is written as '123456' and 'CABLE' is written as '48962', then what will be the word for '6283123456' ?
 (1) LEANPENCIL (2) LAENPENCIL
 (3) LEANPNCLI (4) None of these
45. In a code language '123' means 'hot filtered coffee', '356' means 'very hot day' and '589' means 'day and night'. Then which number is used for 'very' ?
 (1) 6 (2) 8
 (3) 9 (4) 5
46. If $FED \times 3 = 1629$ and $BCD \times 4 = 492$ then which of the following will be the value of $BEF \times 5$?
 (1) 1280 (2) 640
 (3) 625 (4) 725
47. If 'TEN' is coded as '256' and 'SIXTY' is coded as '19827' then how will 'SIXTEEN' be coded in the same code?
 (1) 1928556 (2) 1982556
 (3) 1982665 (4) None of these
48. If in a certain code language 'RECOMMENDATION' is written as 'I22X12N14V13W26G18L13' then how will 'SUGGESTION' be written in the same language?
 (1) 8F1920VH718L13 (2) H6T20V8G18L13
 (3) H6T22V87R12M (4) None of these
49. If in a certain code language 'SENTENCE' is written as '8V13G22M24V' then how will 'PARAGRAPH' be written in the same language?
 (1) 11Z9Z20I26K19 (2) K26I26T9Z11S
 (3) 1611817181168 (4) None of these
50. If in a code language 'STRONGER' is written as 'HTIOMGVR', then how will 'STABLE' be written in the same language?
 (1) TUBCMF (2) RSZAKD
 (3) ELBAST (4) HTZBOE
51. If in a code language 'Be Dom' means 'Lovely Flower,' 'Noc Til Be' means 'Flower And Fruit,' 'Pre Zas Dom' means 'Lovely Green Posture' and 'Noc Zas' means 'Green Fruit,' then what will be the code for 'Green' in that language?
 (1) Noe (2) Zas
 (3) Be (4) Pre
52. If in a code language 'Kat Loo Lim' means 'Drink Hot Coffee, Kus Lim Zim' means 'Coffee And Tea' and 'Zim Loo Nit' means 'Sale Hot Tea', then which code is used for 'Hot' in this code language?
 (1) Zim (2) Lim
 (3) Loo (4) Kat
53. If in a code language 'Few zas luma seko' means 'We are taking dinner', 'Few nepo dua' means 'We give money' and 'Put lim seko' means 'He like dinner', then which code is used for 'We' and 'Dinner' in this language?
 (1) Few and Zas (2) Seko and Luma
 (3) Few and Seko (4) Lime and Seko
54. In a sign language, 'Ku se tis' means 'Few bad people' and 'kis iu ku' means 'good and bad', then what sign is used for the word 'bad' ?
 (1) iu (2) se
 (3) tis (4) ku
55. In a sign language, 'Loc non dil' means 'cute small child', 'git Fon non' means 'child are good' and 'sai bin git' means 'We are fine'. What is the sign used for the word 'good' ?
 (1) Loc (2) Fon
 (3) non (4) git
56. If in a code language '@ ₹ + ' means 'Martin give book', '\$ # @' means 'Roma give pen' and '₹ \$%' means 'Martin and Roma study', then which of the following is the literal meaning of the '@' code?
 (1) Roma (2) Martin
 (3) give (4) None of these

57. If in a code language '456' means 'Before some time', '1237' means 'We are going Kashmir', '89' means 'you should', ' $2 \div 3$ ' means 'We love Kashmir' and ' $\Delta 3 + X$ ' means 'Why Kashmir is beautiful', then which number/symbol is used for 'Kashmir' in that code language?
- (1) Δ (2) X
(3) 3 (4) Z
58. If in a code '1a, 2b, 3c,' means 'Game is over', '3c, 4a, 5b, 1a' means 'Player is not over' and '4a, 6d, 2b, 8c' means 'Game does not exist', then which code is used for 'Player' in this code?
- (1) 1a (2) 3c
(3) 4a (4) 5b
59. If in a certain code 'top ki pop bob' means 'one red good boy', 'top sop pop bob' means 'one red tall boy', 'top bob met set' means 'red boy and girl' and 'sop set ki' means 'good tall girl' then what is the code for 'good and tall'?
- (1) set met ki (2) sop met ki
(3) top met set (4) sop pop bob
60. What is the meaning of 'pop set met top bob' in the above question?
- (1) one girl and red boy
(2) red girl and tall boy
(3) one boy and good girl
(4) red boy and good girl

Directions (Q.No. 61-63): 26 letters of the English alphabet are arranged on a circular clock in the clockwise direction (Clockwise) in such a way that A falls at 12 and N at 6 and the distance between every two letters is the same, then-

61. If it is three o'clock on the clock, where will the two needles be?
- (1) Hour hand at C, minute hand at A
(2) Hour hand at G, minute hand at A
(3) Hour hand between G and H, minute hand at A
(4) Hour hand at G and minute hand between A and B
62. How many complete rounds will be required to write APPLE if a letter can be written only once when it is reached?
- (1) 1 (2) 2
(3) 3 (4) 5
63. If the hour hand is near U and the minute hand is at N, then which of the following could be the time?
- (1) 11:30 (2) 4:30
(3) 9:30 (4) 7:30

Directions (Q.No. 64-65): 26 letters of English are arranged on a circular clock in the anticlockwise direction in such a way that, if A falls on 12 and N falls on 6 then-

64. What time will it be when the minute hand of the clock is at A and the hour hand is between T and U?
- (1) 9:00 (2) 9:30
(3) 3:00 (4) 5:30

65. Where will the hand be when the clock reads 9:00?
- (1) Hour hand between G and H, minute hand on A
(2) Hour hand between T and S, minute hand on N
(3) Hour hand between H and I, minute hand on A
(4) Hour hand between X and Y, minute hand on N
66. If in a code language 'police' is called 'teacher', 'teacher' is called 'politician', 'politician' is called 'doctor', 'doctor' is called 'lawyer' and 'lawyer' is called 'surgeon' then who will catch the 'criminals'?
- (1) Doctor (2) Teacher
(3) Lawyer (4) Police
67. If in a code language 'mango' is 'fruit', 'fruit' is 'tree', 'tree' is 'wood', 'wood' is 'coal', 'coal' is 'fire', 'fire' is 'wind', 'wind' is 'water' then what is the colour of 'fire' in that code?
- (1) Cannot be decided (2) Yellow
(3) Colourless (4) Black
68. If all 'rivers' are 'Ganga', 'Ganga' falls into the 'Arabian Sea', 'Arabian Sea' is 'sea', 'sea' is 'big', 'Kosi' is a river then where does 'Kosi' fall?
- (1) In the Ganga
(2) In the sea
(3) In the Arabian Sea
(4) All the options are wrong.
69. In a certain code language, 'HAMMER' is written 'ICPQJX' then how will you write 'WRENCH' in that language?
- (1) XTIRIN (2) XTHRHN
(3) XTIRHN (4) XTHRIN

SSC CGL, 2019

70. In a certain code language, 'WARDROBE' is changed to 'YXVYXHJV' then how will 'ACCURATE' be written in the same language?
- (1) CZGPXTBV (2) CZHPYTBV
(3) BZHPXTBV (4) DZGPXTBV

SSC CGL, 2019

71. If 'CAB' is coded as "6" and 'BED' is coded as 40, what will 'HAD' be coded for?
- (1) 16 (2) 52
(3) 32 (4) 46

SSC CGL, 2018

72. If in a sign language, 'COMPUTER' is replaced by 'OCREPMTU' then how will 'DAUGHTER' be written in the same language?
- (1) READTHGU (2) ADTHRGU
(3) ADREGUTH (4) ADERUGTH

SSC CGL, 2018

73. If 'IMPLORE' is written as 'GKNJMPC' in a code then how will 'HUB' be written in the same code?
- (1) AWN (2) WAO
(3) FSZ (4) TEY

SSC CGL, 2017

74. In a typical code language, 'RAIN' is written 'MHBQ' How will 'SUMMER' be written in the same code language?

(1) QFLNTT (2) QDLLTR
(3) SFNNVT (4) SDNLVR

SSC CGL, 2017

75. If 'HOUSE' is written 'FQSUC' then how can 'CHAIR' be written that code?

(1) DIBJS (2) SBJID
(3) SHBGD (4) AJYKP

SSC CGL, 2016

76. In a code language, 'TORCH' is written as 'UNPSDI' and 'BEST' is written as 'CDFTV', in the same code language how will 'MARKS' be written?

(1) NABSLU (2) NZBSLT
(3) OZBSMT (4) NZCSLT

SSC CPO, 2020

77. In a code language, 'DENT' is replaced by "51" and 'LOAD' by 40, then in the same code language how will 'COST' be written?

(1) 62 (2) 57
(3) 75 (4) 65

SSC CPO, 2020

78. If in a code language 'BANKER' is replaced by 'NABREK' and then how will 'STRING' be written in the same code language-

(1) RSTGIN (2) RTSGNI
(3) TSIRGN (4) RTGSNI

SSC CPO, 2018

79. If 'CONCERT' is written CNEROCT in a code language then how will SMARTER be written in that language?

(1) RATESMR (2) RATEMSR
(3) RATMESR (4) RETRAMS

SSC CPO, 2018

80. If DIG = 41 and GOAD = 55 then FACT = ?

(1) 45 (2) 61
(3) 53 (4) 63

SSC CPO, 2018

81. In a certain code language, 'LOCKER' is written 'OLXPVI' how will 'GLOBAL' be written in the same language?

(1) HUYTRE (2) TOLYZO
(3) JOREDO (4) UPMZAP

SSC CHSL, 2019

82. If 'RUBY' is coded 264 in the coding language and 'PAY' is coded 126, then 'RUPAY' be coded as-

(1) 81 (2) 145
(3) 405 (4) 375

SSC CHSL, 2018

83. If 'LUCTRATIVE' is coded to 333912945, then in the same language how will 'AMSTERDAM' be written?

(1) 141248414 (2) 141259414
(3) 149248414 (4) 131458311

SSC CHSL, 2018

84. In a typical code language, 'FRAME' is written as '79635' and 'TOWEL' is written as '21854' then how will 'WORM' be written in the same code language?

(1) 9376 (2) 8193
(3) 9183 (4) 1593

SSC CHSL, 2017

85. If 60#40 = 10, 40@20 = 6 and 60#90 = 15 then 40#30 = ?

(1) 15 (2) 12
(3) 18 (4) 7

SSC CHSL, 2017

86. In a certain code language, 'BUZZY' is encrypted as 10 and encrypted 'KING' as '8'. How would 'ABROAD' be encrypted in that language?

(1) 10 (2) 7
(3) 9 (4) 12

SSC CGL, 2024

87. In a certain code language, 'CONFUSED' is coded as "7" and 'CHAIN' is coded as "4". How will 'ADULTHOOD' be coded in that language?

(1) 9 (2) 7
(3) 8 (4) 6

SSC CGL, 2024

88. In a certain code language, 'DEMAND' is written as "410132144" and 'SUPPLY' is written as "194216161225" How will 'PRODUCT' be written in that language?

(1) 161830442320 (2) 323615821640
(3) 1615432320 (4) 161815421320

SSC CGL, 2024

89. In a code language, 'VAIN' is written as 'OKBY' and 'VAST' is written as 'UUBY'. How will 'VERB' be written in that language?

(1) CFTY (2) CTFY
(3) CTYF (4) CFYT

SSC CGL, 2024

90. In a code language, 'MAN' is coded as "15316" and 'SHE' is coded as "21107". How will 'OUT' be coded in the same language?

(1) 152120 (2) 172121
(3) 172322 (4) 152222

SSC CGL, 2024

91. In a code language, BRING is coded as "7149182" and SMILE is coded as "51291319". What will be the code for FORGIVE?

- SSC CGL, 2024**
- 92.** In a certain code language, 'get enough sleep' is coded as 'ab de jf' and 'go get it' is coded as 'jk ab gh'. How is 'get' coded in that language?

SSC CGL, 2024

- SSC CHSL, 2024

- SSC CHSL, 2024

- SSC CHSL, 2024

- SSC CHSL, 2024

- SSC CHSL, 2024

- SSC CHSL, 2024

- SSC CHSL, 2024

- SSC CHSL, 2024

- SSC CHSL, 2024

- SSC CHSL, 2024

- (1) Ta (2) Ka
(3) Bi (4) Bu **SSC CHSL, 2024**

Answer Key

- | | | | | | | | | | |
|----------|----------|---------|---------|---------|---------|---------|---------|---------|----------|
| 1. (2) | 2. (3) | 3. (1) | 4. (1) | 5. (4) | 6. (2) | 7. (2) | 8. (1) | 9. (4) | 10. (1) |
| 11. (3) | 12. (4) | 13. (2) | 14. (3) | 15. (4) | 16. (2) | 17. (3) | 18. (2) | 19. (1) | 20. (3) |
| 21. (1) | 22. (2) | 23. (4) | 24. (3) | 25. (4) | 26. (1) | 27. (4) | 28. (2) | 29. (3) | 30. (1) |
| 31. (4) | 32. (2) | 33. (1) | 34. (2) | 35. (4) | 36. (2) | 37. (3) | 38. (1) | 39. (2) | 40. (4) |
| 41. (2) | 42. (3) | 43. (3) | 44. (1) | 45. (1) | 46. (4) | 47. (2) | 48. (2) | 49. (1) | 50. (4) |
| 51. (2) | 52. (3) | 53. (3) | 54. (4) | 55. (2) | 56. (3) | 57. (3) | 58. (4) | 59. (2) | 60. (1) |
| 61. (2) | 62. (3) | 63. (3) | 64. (3) | 65. (1) | 66. (2) | 67. (1) | 68. (3) | 69. (2) | 70. (1) |
| 71. (3) | 72. (3) | 73. (3) | 74. (4) | 75. (4) | 76. (2) | 77. (4) | 78. (2) | 79. (2) | 80. (2) |
| 81. (2) | 82. (3) | 83. (2) | 84. (2) | 85. (4) | 86. (4) | 87. (3) | 88. (1) | 89. (2) | 90. (3) |
| 91. (4) | 92. (4) | 93. (4) | 94. (3) | 95. (2) | 96. (3) | 97. (3) | 98. (3) | 99. (4) | 100. (3) |
| 101. (2) | 102. (2) | | | | | | | | |