A New Approach to **REASONING FOR COMPETITIONS**

By Preeti Aggarwal Tanvy Aggarwal



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CODING-DECODING

Coding is a method of encrypting a message (usually done by the sender) while decoding is a method of deciphering the message to get the original data (usually done by the receiver).

Steps to Solve the Coding-Decoding Questions

"Codes for one or more messages are given, based on which we either have to code or decode the message".

Step 1: Identifying the technique to decode the given message.Step 2: Code or decode the message (as required) to get the answer following the identified technique.

Here the codes are expressed in the form of alphabets.

PAIR OF OPPOSITE LETTERS

According to the alphabetical order, the *n*th letter from the beginning and the *n*th letter from the end are known as pair of opposite letters.

Letter from left side	A	. E	3	С	Γ)]	E	F		G	H	[Ι	J	K	L	М
Position	1	2	2	3	4	+ :	5	6		7	8		9	10	11	12	13
Letter from left side	N	C)	Р	Ç	5 1	R	S		Т	U	l	V	W	Х	Y	Ζ
Position	14	1	5 1	6	1	7 1	8	19	í	20	2	1	22	23	24	25	26
Letter from right side	n	Ζ	Y	2	x	W	v	τ	J	Т		S	R	Q	Р	0	N
Position		1	2	1	3	4	5	6	5	7	Τ	8	9	10	11	12	13
Letter from right side	n	М	L	ŀ	ζ	J	Ι	ł	I	G		F	E	D	С	В	A
Position		14	15	1	6	17	18	3 1	9	20		21	22	23	24	25	26

Note: There are 5 vowels in the alphabetic series, viz. A, E, I, O and U.

Other than vowels all other letters are known as consonants.

TYPE 1. Number Coding

Here the codes for alphabets are expressed in the form of numbers.

1.1. DIRECT NUMBER CODING

(Codes are directly written)

Example 1. If in a certain code language, 'POSITION' is written as '12345426' and 'MORE' is coded as '7289', then how will the word 'PROMOTION' be coded?

Solution. We have codes: $P \rightarrow 1, O \rightarrow 2, S \rightarrow 3, I \rightarrow 4, T \rightarrow 5, N \rightarrow 6, M \rightarrow 7, R \rightarrow 8, E \rightarrow 9$

It is clear that the coding is done directly.

The code for the word 'PROMOTION' is '182725426'.

1.2. POSITION OF THE ALPHABETS IN THE ALPHABETIC SERIES

Example 2. If the word 'SCHOOL' is coded as '1938151512', then how will the word 'COLLEGE' be coded?

Solution. It is clear that the coding is done according to the position of the letters in the alphabetic series *i.e.* A \rightarrow 1, B \rightarrow 2, C \rightarrow 3 etc.

We have the codes:

 $C \rightarrow 3, O \rightarrow 15, L \rightarrow 12, E \rightarrow 5, G \rightarrow 7.$

The code for the word 'COLLEGE' is '3151212575'.

1.3. ADDING UP THE POSITIONAL VALUE OF THE ALPHABETS IN THE ALPHABETIC SERIES

Example 3. If the word 'THANKS' = 73, then what will be the value of the word 'WELCOME'?

Solution. It is clear that the coding is done by adding the positional value of letters in the word.



The code for the word 'WELCOME' is '76'.

1.4. CODES GIVEN IN THE TABLE

Example 4. In this question, you have to code the word 'GESTURE' using the table and conditions given below.

Letters	Т	G	R	U	Е	Р	В	S	Α
Codes	1	2	3	4	5	6	7	8	9

Solution. It is clear that the coding is done according to the codes of the letters given in the table.

The code for the word 'GESTURE' is '2581435'.

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We have the coded, $G \rightarrow 2, E \rightarrow 5, S \rightarrow 8, T \rightarrow 1, U \rightarrow 4, R \rightarrow 3, E \rightarrow 5.$

The code for the word 'GESTURE' is '2581435'.

Type 2. Letter Coding



2.1. DIRECT LETTER CODING-DECODING

(Here the codes are directly written).

Look for the repetition of letters and their codes, if every time same code is used for the same letter then the coding is direct in nature.

Example 5. If in a certain code, 'CHAIR' is coded as 'JHVZC' and 'PAINT' is coded as 'TVZLQ', then how will the word 'CHANT' be coded?

Solution. The codes of the two given words are analysed and it was observed that each alphabet has a unique replacement. I is coded as Z, A is coded as V in both examples, and likewise.

So, we have codes: $C \rightarrow J, H \rightarrow H, A \rightarrow V, I \rightarrow Z, R \rightarrow C, P \rightarrow T, N \rightarrow L, T \rightarrow Q$

The code for 'CHANT' is 'JHVLQ'.

Example 6. If in a certain code, 'REPRESENTATIVES' is coded as 'KWQKWLWACRCNMWL', then how will the word 'PRESENT' be coded?

Solution. The code of the given word analysed and it was observed that each alphabet has a unique replacement. R is coded as K, E is coded as W in both examples, and likewise.

So, we have the codes: $R \to K$, $E \to W$, $P \to Q$, $S \to L$, $N \to A$, $T \to C$, $I \to N$, $V \to M$.

The code for 'PRESENT' is 'QKWLWAC'.

2.2. ALPHABET JUMP

(Some mathematical operation is applied)

Example 7. If 'MOBILE' is coded as 'OQDKNG', then how the word 'FACEBOOK' will be coded as?

Solution. The letters used as the code for the message 'MOBILE' are two places ahead of the corresponding letters.

The code for the word 'FACEBOOK' is 'HCEGDQQM'.

2.3. JUMBLING UP THE ARRANGEMENT OF THE LETTERS

Example 8. If the word 'RESPONSIBLE' is coded as 'ELBISNOPSER', then how will the word 'ENJOYMENT' be coded?

Solution. The code of the message is the reverse order of the message.

The code for the word 'ENJOYMENT' is 'TNEMYOJNE'.

2.4. OPPOSITE PAIR OF LETTERS

(Opposite pair of letters)

♦ CODING-DECODING

Example 9. If the word 'COPPER' is coded as 'XLKKVI', then how will the word 'SILVER' will be coded?

Solution. Letters in the word and its code are equidistant from both the sides of the alphabetic series.



The code for the word 'SILVER' is 'HROEVI'.

2.5. MATHEMATICAL OPERATION AND JUMBLING OF LETTERS

Example 10. If the word 'SNATCH' is coded as 'JEVCPU', then how will the word 'REVOLT' be coded?

Solution. The letters are first written in the reverse order and then the coding is done where the code is the second alphabet from the given letter.

SNATCH
$$\longrightarrow$$
 H C T A N S
 $\downarrow +2$
J E V C P U
REVOLT \longrightarrow T L O V E R
 $\downarrow +2$
V N Q X G T

The code for the word 'REVOLT' is 'VNQXGT'.

TYPE 3. Symbol Coding



Here the codes are expressed in the form of symbols.

Example 11. If in a certain code language, TRUCK is written as @#\$%&, then how will CUT be written?

Solution. It is clear that every letter has different code in the form of a symbol.

We have the codes:

 $T \to @, R \to \#, U \to \$, C \to \%, K \to \&.$

The code for the word 'CUT' will be '%\$@'.

Type 4. Substitution Coding



Some words are assigned certain substituted names as codes.

Example 12. If 'teacher' is called 'doctor', 'doctor' is called 'manager', 'manager' is called 'peon' and 'peon' is called 'teacher', then who will treat a patient?

Solution. Teacher \rightarrow Doctor Doctor \rightarrow Manager Manager \rightarrow Peon Peon \rightarrow Teacher

Hence 'Manager' treats a patient (as doctor is called manager).

TYPE 5. Sentence Coding

Here some messages are given in the coded language and the code for a particular word or message is required to answer the question.



Any two messages bearing a common word are picked up to analyse the codes.

Example 13. In a certain language, 'moon is a satellite' is written as 'la ka ja ha', 'satellite is present in space' is written 'ha ka ga fa da' and 'earth has one satellite' is written as 'sa ma na ha', then what is the code for the word 'satellite'?

Solution.



Code for the word 'satellite' is 'ha'.

Туре 6. **Conditional Coding**



The codes used are mixture of letters, numbers and symbols.

DIRECTIONS (14–16): In the questions given below, you have to code the given word using the table and conditions given below, then choose the correct alternative from the options:

Letters	A	В	C	D	Е	F	G	Н	Ι
Codes	@	3	#	4	%	6	&	8	\$

Conditions:

- If the first letter is a consonant and the last letter is a vowel, *(i)* then both are coded as X.
- (ii) If both the first and the last letters are vowels, then their codes are to be interchanged.
- *(iii)* If the first letter is a vowel and the last letter is a consonant. then both are to be coded as the code for the first letter.

Example 14. What will be the code of 'GFDAE'? Solution. Since the first letter is a consonant and the last one is a vowel, condition (i) is satisfied. So, $G \rightarrow X$, $E \rightarrow X$ and $F \rightarrow 6, D \rightarrow 4, A \rightarrow @$

The code for the word 'GFDAE' will be 'X64@X'.

Example 15. What will be the code of 'ADBCI'? Solution. Since both the first and the last letters are vowels,

condition (*ii*) is satisfied. So, $A \rightarrow$ \$, $I \rightarrow @$ and $D \rightarrow 4$, $B \rightarrow 3$, $C \rightarrow #$

The code for the word 'ADBCI' will be '43#@'.

Example 16. What will be the code of 'IDGFH'?

Solution. Since the first letter is a vowel and the last one is a consonant, condition (*iii*) is satisfied. So, $I \rightarrow$ \$, $H \rightarrow$ \$, and $D \rightarrow 4, G \rightarrow \&, F \rightarrow 6$

The code for the word 'IDGFH' will be '\$4&6\$'.



TYPE 1. Number Coding

- In a certain code language, 'NUMBER' is written as 1. '156897' and 'GUARD' is written as '45073'. How is 'BURDEN' written in that code language? (a) 857314 (b) 854317 (c) 853697 (d) 857391
- 2. If DANGER is coded as 11-8-21-14-12-25, then how will the word MACHINE be coded? (a) 20-10-15-14-26-17-18 (b) 20-8-10-15-16-21-12(c) 20-10-8-12-15-16-7 (d) 20-8-10-16-17-22-13
- If ABLE is written as 5324 and BINGO is written as 36178, 3. then BANGLE can be written as: (a) 351724 (b) 326754 (c) 341826 (d) 361824
- 4. If DEAF is written as 6154, then FROWN is written as: (*a*) 142215176 (*b*) 142314166
 - (c) 142315186 (*d*) 142214176
- 5. If BROTHER is coded as 2456784. SISTER is coded as 919684. What is the code for ROBBERS? (a) 9234765 (b) 4562684
 - (c) 9245784 (d) 4522849
- 6. If LACK is written as 396, then DRAG is written as: (*d*) 796 (*a*) 418 (*b*) 504 (*c*) 612
- 7. If A = 26, and X-RAY = 40, then WHAT = ? (*a*) 54 (*b*) 56 (*c*) 60 (*d*) 62
- If A = 1, CAT = 60, then MAN =? 8. (*a*) 52 (*b*) 96 (c) 182 (d) 214
- 9. If in a code language, 3456 = ROPE and 15526 = APPLE, then 54613 = ?(a) POEAR (b) PAOER (c) PEARO (d) PREAO
- 10. If A = 1 and ASS = 39, GRASS = ?(*a*) 64 (*b*) 63 (*c*) 46 (*d*) 44
- 11. If MAMMAL is written as 13-1-13-13-1-12, then using same code, REPTILE is written as: (*a*) 18-5-16-20-9-12-5 (b) 18-5-20-16-9-12-5 (*c*) 16-5-16-20-9-12-5 (*d*) 18-5-16-20-9-5-12
- **12.** If LISTEN is coded as 593417, then SILENT is coded as: (a) 395174 (b) 593174 (c) 394175 (d) 594173
- 13. If BEAT = 25-22-26-7, then how will you code 'BURST'? (*a*) 25-6-9-8-7 (*b*) 25-9-6-8-7 (c) 25-9-8-7-6 (*d*) 25-22-9-8-7
- 14. If MADRAS is coded as 517916 and TENANT is coded as 432124, then how would you encode RMATSN? (a) 954126 (b) 951426 (c) 951462 (d) 954162

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15.	If BUILDING is coded as 41527596 and RIVER as 85308, what will be the code for BRIDGE? (<i>a</i>) 485670 (<i>b</i>) 485760 (<i>c</i>) 486750 (<i>d</i>) 487650	30.	If $B = 2$, $A = 1$, $M = 3$, $R = 5$, $E = 6$, $O = 7$, the sum of the letters of which of the following words will give the highest number?
16.	If MONKO is coded as 57637, then POLKI be coded in the same code? (<i>a</i>) 98543 (<i>b</i>) 97452 (<i>c</i>) 87532 (<i>d</i>) 87431	31.	(a) BORE (b) ROOM (c) MORE (d) RARE If MEKLF is coded as 91782 and LLLJK as 88867, then how can IGHED be coded?
17.	If REASON is coded as 5 and BELIEVED as 7, what is thecode number for GOVERNMENT?(a) 6(b) 7(c) 9(d) 10	32.	(a) 97854 (b) 64521 (c) 53410 (d) 75632 APPRECIATION is coded as 177832419465, then how will you code PERCEPTION?
18.	Let $J = 1$, $K = 2$, $L = 5$, $M = 7$, $N = 11$, $O = 13$, $P = 17$, Find the letter to be inserted in the box in the relation given: $(N\Box + M) \div K = 31$	33.	(a) 7382379465 (b) 7392378465 (c) 7292378465 (d) 7383297465 If J = 10, JASMINE = 71, then ESTIMATE =? (a) 71 (b) 82 (c) 92 (d) 91
19.	(a) J (b) L (c) O (d) P Select the correct response. If $RAJ = 29$, EDUCATION =? (a) 81 (b) 86 (c) 92 (d) 97	34.	(a) 71 (b) 82 (c) 92 (a) 91 If each of the letters in the English alphabet is assigned an even numerical value beginning $A=2$, $B=4$, and so on, what will be the total value of the letters for the word INDIA?
20. 21.	(a) 21 (b) 31 (c) 41 (d) 28 In a code language P is denoted by 7, X by 9, M by 5, Z by 8, L by 2, T by 1, then ZLTPXM will be	35.	 (a) 48 (b) 56 (c) 69 (d) 74 If 'INDUS' is coded as '03865' and 'TENNIS' is coded as '243305', then what will be the code for 'STUDENT'? (a) 5628342 (b) 5648324
22.	(a) 812851 (b) 821591 (c) 812/15 (d) 821/95 If BROAD means 19812, CLOCK means (a) 68262 (b) 68622 (c) 26826 (d) 37836	36.	(c) 5268432 (d) 5642832 If DEAR is coded as 6-8-3-21, then how will you code TRACK2
23.	In a certain code, PEN is coded as 123, PENCIL as 123456, CABLE as 48962, then 6283123456 means what?		$\begin{array}{c} (a) & 22-21-3-6-11 \\ (c) & 22-21-4-5-10 \\ (c) & 22-21-4-5-10 \\ (c) & 20-21-3-6-17 \\ (c$
24.	 (a) EACEI ENCIL (b) ENGLI ENCIL (c) LANEPENCIL (d) LEANPENCIL If MUSTARD is written as 132119201184, then how is PROFUSE written in that code? 	37.	If HUMBLE is written as 834235 and REASON is written as 951165, then STRIKE can be written as: (<i>a</i>) 1029945 (<i>b</i>) 129925 (<i>c</i>) 129825 (<i>d</i>) 129935
25.	(a) 16815621195 (b) 16181562195 (c) 16181521195 (d) 161815621195 If each of the letters in the English alphabet is assigned an	38.	If MENTION is written as 5447934 and REQUESTt is wirtten as 9416487, then FAME can be written as: (a) 6145 (b) 3145 (c) 3845 (d) 3854
	odd numerical value beginning $A = 1$, $B = 3$, and so on, what will be the total value of the letters for the word HOTEL? (a) 95 (b) 115 (c) 125 (d) 105	39.	If TABLE is coded as 13 and SHOP is coded as 22, then what is the code for STAIRS? (a) 35 (b) 22 (c) 23 (d) 26
26.	If each of the letters in the English alphabet is assigned an even numerical value by giving $A = 2$, $B = 4$, and so on, what will be the total value of the letters for the word LADY	40.	If RAM is written as 14 and SHYAM is written as 30, thenSONAKSHI can be written as:(a) 32(b) 33(c) 50(d) 51
27.	(a) 82 (b) 74 (c) 72 (d) 84 If 35674 is written as 57896 then how will 4213 be written	41.	If SHE is written as 96 and THEM is written as 184, then ME can be written as: (a) 18 (b) 36 (c) 54 (d) 72
	as (a) 6435 (b) 5397 (c) 5889 (d) 5376	42.	If LAMB is written as 7 and CAT is written as 8, then Hotel can be written as:
28.	If 'Madagascar' can be written as 4727879670, then Madras can be written as: (<i>a</i>) 424290 (<i>b</i>) 427409 (<i>c</i>) 472079 (<i>d</i>) 47290	43.	(a) 12 (b) 10 (c) 13 (d) 11 If RAHUL is written as 36 and AKSH is written then PPIVANKA can be written as:
29.	In certain code, FAN is written as 21, 26, 13, then DEAD will be written as:	44.	(a) 169 (b) 196 (c) 225 (d) 256 If SHIMLA is written as 4 and DELHI is written as -5 then
	(a) 23,26,22,23(b) 22,23,26,22(c) 23,22,26,23(d) 22,23,25,22		INDORE can be written as:(a) 0(b) 1(c) 2(d) -1

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45.	If TABLE is written as 101 and HIM is written as 65. ThenHUMBLE can be written as:(a) 167(b) 177(c) 187(d) 197	61.	In a certain code language, GOLF is written as 60 and START is written as 117. How will NEST be written in that language? [CHSL 2020]
46.	If THEM = 4589, WHITE = 82475, MINE = 4912 and HIM = 289, then WHEAT = ? (<i>a</i>) 75406 (<i>b</i>) 85407 (<i>c</i>) 28954 (<i>d</i>) 75906	62.	(a) 58 (b) 21 (c) 87 (d) 78 If $O = 20$, LIT = 46, how will PIG be coded using the same code language? [CHSL 2020] (a) 46 (b) 53 (c) 37 (d) 41
47.	In a certain code PROGRESS is written as '3' and DEVELOPMENT is written as '16'. How is MANAGEMENT written in that code? [DSSSB 2019] (a) 7 (b) 6 (c) 9 (d) 8	63.	In a code certain code language, MUSIC is coded as 60 and TUNE is coded as 56. How will LYRIC be coded in that language? [CHSL 2020]
48.	If HOTEL is coded as 12, then how is URVASI coded? [DSSSB 2018] (a) 14 (b) 13 (c) 11 (d) 15	64.	(a) 65 (b) 65 (c) 62 (a) 67 In a certain code language 'WAND' is coded as '240153' and 'CURD' is coded '420193'. How will 'EAST' be coded
49.	If POTATO is coded as 3, then the code of MASK will be [RAS 2015]	65	(a) 421719 (b) 612120 (c) 421821 (d) 602019 In a certain code language 21683 is coded as LIEHC and
50.	(a) 7 (b) 4 (c) 3 (d) 1 If RAMON is written as 12345 and DINESH as 675849,	03.	15654 is coded as OFED. How will 15236 be coded as in that language? [CHSL 2020] (a) FAEBC (b) OBCE (c) AFEOE (d) FOX
51	(a) 92233 (b) 92323 (c) 93322 (d) 93232 (a) MISTAKE is spitting and 425 (127 is a spitting and b) here.	66.	In a certain language, STAR is coded as 55 and CUT is coded as 42. How will 'PEN' be coded as in that
51.	would STEAM be written in that code? [APPSC] (a) 13457 (b) 75614 (c) 65741 (d) 56714		language? [CHSL 2020] (a) 51 (b) 68 (c) 55 (d) 33
52.	Certain code SLOB is written as 4379, FATE is written as 2685. How is 'LOFT' written in that code? [UP Police 2019] (<i>a</i>) 7539 (<i>b</i>) 5626 (<i>c</i>) 3728 (<i>d</i>) 2091	67.	In a certain code language, "ROADS" is written as "57" and "HORN" is written as "55". How is "BLOW" written in that code language? [DP 2017] (a) 46 (b) 48 (c) 47 (d) 52
53.	In a certain code, PLUS is written as 6275 and ATOM is written as 4813. How is PALM written in that code? [UPPCS 2019] (a) 6423 (b) 8817 (c) 3548 (d) 5708	68.	In a certain code langue, "TUNES" is written as "16" and "FREEZE" is written as "11". How is "CLIMB" written in that code language? [DP 2017]
54.	If in a certain code, SILK is written as 1991211, then what will COTTON be written as in the same code?	69.	(a) 14 (b) 10 (c) 12 (d) 16 If CAT = 60, DART = 1440, then how much is BART equal to?
	(a) 31514152020(b) 35201201515(c) 32015152014(d) 31520201514	70.	(a) 480 (b) 540 (c) 720 (d) 360 In a coding system, 1357 is coded as 2468. In the same
55.	In a certain code, WANT is written as 4715 and COPE is written as 2863. How is NOTE written in that code? [UP Police 2018]		system, how is 2468 coded as? [DSSSB 2019] (a) 3579 (b) 9357 (c) 3571 (d) 1357
56	(a) 2384 (b) 8118 (c) 1853 (a) 9890	71.	If FRUIT is coded as 58281, then how is GRAPES coded? [DSSSB 2018]
30.	written as 8396. How is COIN written in that code? [UP Police 2019]		(a)718116519(b)791751(c)680649(d)680640
	(a) 4547 (b) 9035 (c) 1901 (d) 7923	72.	If 'MISTAKE' is coded as 9765412 and 'NAKED' is coded as 84123 how is 'INTIMATE' coded? [REB IF CET 1 2019]
57.	If the value of $CAT = 24$ and that of $DOG = 26$. What would be the value of PIG? [APPSC] (a) 37 (b) 25 (c) 29 (d) 32		(a) 89786145 (b) 78579452 (c) 79438163 (d) 78698365
58.	If GOOD = 41, then BAD = ?[UP Police 2018] $(a) \ 6 \qquad (b) \ 12 \qquad (c) \ 7 \qquad (d) \ 10$	73.	If 'MISTAKE' is coded as 9765412 and 'RANKED' is coded as 348120, how the word 'DISTANT' is coded? [RRB JE CBT 1, 2019]
59.	If ACTIVE = 60, then PASSIVE = ?[UP Police 2018](a) 100 (b) 80 (c) 91 (d) 55		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
60.	In a certain code language, N is coded as '30' and 'COT' is coded as '78'. How will 'PET' be coded as in that language?	74.	In a code language, 'DENT' is written as '51' and 'LOAD' is written as '40'. How will 'COST' be written in that language?
	(a) 70 (b) 84 (c) 100 (d) 41		(a) 57 (b) 65 (c) 75 (d) 62

	REASONING FOR COMPETITIONS	Scoding-Decoding & 1-6
75.	In a code language, 'BLOCK' is written as '31316412'. How will 'SUPREME' be written in that language? [SSC CPO 2020] (a) 192116185605 (b) 202317206146	 89. In a certain code language, 'VIRTUE' is coded as '201' and 'TRAGEDY' is coded as '218'. How will 'PROFANE' be coded in that language? [SSC CGL 2021] (a) 570 (b) 342 (c) 456 (d) 432
76.	(c) 192217196156 (d) 202217196146 If in a coding system, FIXED is coded as 86 and COMPANY is coded as 101, then how will INTERIM be coded in the same coding system?[SSC CPO 2020](a) 102 (b) 100 (c) 99 (d)(a) 102 (b) 100 (c) 99 (d)	 90. In a certain code language, 'CROW' is coded as '64' and 'EAGLE' is coded as '125'. How will 'PARROT' be coded in that language? [SSC CGL 2021] (a) 232 (b) 216 (c) 249 (d) 88
77.	If SEIZURE is coded as 8231592 and HARMONY is coded as 1919144132, then how will PRODUCE be coded? (a) 1194235242 (b) 11122234569 [DP 2010] (c) 11912236245 (d) 1194232425	91. In a certain code language, 'KNOW' is coded as '1614154'. How will 'HIRE' be coded in that language? [SSC GD Constable 2021] (a) 18191822 (b) 89185 (c) 1991822 (d) 199922
78.	In a code language, SKILL is written as 72. How will CAREER be written as in that language?[DP 2020](a) 112(b) 82(c) 102(d) 92	 92. In a certain code language, 'FRENCH' is coded as '114' and 'LOSS' is coded as '47'. How will 'COURSE' be coded in that language? (a) 102 (b) 120 (c) 87 (d) 81
79.	If EQUALITY is coded as 22832631827 and CONFIRM is coded as 2465211894, then how will RESOURCE be coded? [DP 2020] (a) 922106392422 (b) 922103629242 (c) 9221026392422 (c) 922103629242	 (a) 105 (b) 120 (c) 87 (a) 81 93. In a certain code language, MACHINE is coded as 5861944. How will STORK be coded in that language? [SSC CHSL 2021] (a) 96479 (b) 12692 (c) 87397 (d) 86496
80.	(c) 921206932242 (d) 921206923224 If in a certain code, TWENTY is written as 863985 and ELEVEN is written as 323039, how is TWELVE written in that code? [KVS 2013] (a) 863203 (b) 863584 (c) 863903 (d) 863063	 94. In a code language, if SEND is written as 168, then how will PURSE be written in the same language? [SSC CHSL 2021] (a) 185 (b) 225 (c) 395 (d) 415 95. In a certain code language, if MATERIAL is written as ODYHVI DP, then how will ONTOLOGY he written in
81.	In a certain code, if DOG is written 4157, then what will MAT be written as? [RRB ALP 2018] (a) 12120 (b) 13012 (c) 13120 (d) 14120	(a) RMSRORJB (b) SRXSPSKC (c) RRSSOSGC (d) RRXRPRKC
82.	If FAKE is coded as 52106 and MAD is coded as 1225, then how will DEER be coded as? [SSC CPO 2019] (a) 36419 (b) 36420 (c) 47520 (d) 35418	 96. If in a coding system, SHELVES is coded as 1919515222219, and NOMINEE is coded as 1412131814225, then how will SEIZURE be coded in the same coding system? (a) 2518266185 (b) 10220262185
83.	If CAB = 13 and FEED = 41, then JADE = [SSC CPO 2019] (a) 45 (b) 41 (c) 35 (d) 43	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
84.	If each English alphabet is assigned even numerical value like $A=2$, $B=4$ and so on, what will be the code of EARTH? [SSC CPO Tier-1, 2019] (a) 102384218 (b) 122384216 (c) 102364016 (d) 102364018	 97. If in a coding system, OPOLENT is coded as 84 and LEARNER is coded as 114, then how will PHYSICS be coded in the same coding system? [SSC MTS 2021] (a) 97 (b) 88 (c) 99 (d) 90 98. If CROWN is coded as 68 and DEPEND is coded as 42, then how would IMAGERY be coded? [SSC MTS 2021]
85.	If $Y = 50$, SEA = 50, then 'YACHT' will be equal to? [SSC CPO Tier-1, 2019]	$(a) \ 68 \qquad (b) \ 67 \qquad (c) \ 71 \qquad (d) \ 73$
86.	(a) 114 (b) 102 (c) 104 (d) 100 If ROSE is coded as 6821, CHAIR is coded as 73456 and PRECH is coded as 96173, what will be the code for SEARCH? [UPPCS 2019] (a) 214673 (b) 214763 (c) 264173 (d) 216473	alphabets are coded in a particular way as shown. How are the given letters coded in that language? 99. <u>A C N P R M D Y Z Q</u> 4 9 0 6 2 1 7 8 3 5
87.	In a certain code, 15789 is written as XTZAL and 2346 is written as NPSU. How will 23549 be written in that code? [UPPCS 2020] (a) NPTUL (b) PNTSL (c) NPTSL (d) NBTSL	QRCYNPD (b) 5298061 (c) 5984067 (d) 5298306
88.	In a certain code language, 'ATUL' is coded as '1-20-21-12' and 'RAJU' is coded as '18-1-10-21'. How will 'GITA' be coded in that language? [SSC GD Constable 2021] (a) 5-11-22-1 (b) 8-9-20-1 (c) 7-9-20-1 (d) 6-10-20-1	S A C L E D X Q W J 6 1 0 9 4 7 5 2 8 3 DEXSAJ (a) 754613 (b) 745163 (c) 746513 (d) 745613

REASONING FOR COMPETITIONS

- 101. In a certain code, 'A' is represented by 1, 'B' by 2, 'C' by 3 and so on; then all multiples of 2 are assigned a code of 2 and non-multiples of 2 are assigned a code of 1. In this scheme of coding, the word 'TURBAN' would be coded as: (a) 222112 (b) 221212 (c) 212212 (d) 211221
- 102. In the following question, unscramble the letters to form a meaningful word. Then find out the correct numerical position of the letters.

Н	Ν	R	С	А	В
1	2	3	4	5	6

(a) 314265 (b) 635241 (c) 435216 (d) 215436

103. Some alphabets are coded as given below:

R	Т	S	U	V	А	В	С	D	Е
8	5	2	0	6	7	9	1	3	4

Which groups of alphabets can be decoded from the following group of numbers: 531602

<i>(a)</i>	TCDUVS	(b)	CTDUVS
(<i>c</i>)	TDVCUS	(d)	TDCVUS

104. In the following question, unscramble the letters to form a meaningful word. Then find out the correct numerical position of the letters in this word.

	S	0	R	Ι	Е	V	D	С
	1	2	3	4	5	6	7	8
(<i>a</i>)	1264	5378		(<i>b</i>) 35	846217	,	
(<i>c</i>)	74182	2653		(d) 83	457621		

DIRECTIONS (105–106): In the following questions, a table is provided in which letters are given in the first line and numbers are given in the second line. Numbers are the codes for letters. Choose the correct code as your answer from amongst the suggested options.

Р	Ν	А	J	R	V	Е	S	Т	М
5	7	3	4	6	1	2	8	9	0

105. MPRATJ

(a) 056349 (b) 056394 (c) 053694 (d) 056794

106. 921547

<i>(a)</i>	TEVJPN	<i>(b)</i>	TEVPJN
<i>(c)</i>	TEVNJP	(d)	TEVPRN

Letter Coding TYPE 2.

107. Using the following code and key, decode the given coded word:

Code	L	Х	Р	Ζ	J	Y	Q	М	Ν	В	
Key	b	а	e	s	р	r	h	i	g	t	

Coded word: ZBYXMNQB

(a) strength (b) height (c) struggle (d) straight

DIRECTIONS (108–110): Below are given letters A to Z. Under each capital letter, a small letter is written which is to be used as a code for the Capital Letter:

Α	В	С	D	Е	F	G	Η	Ι	J	Κ	L	М
1	s	р	k	r	j	х	c	q	g	t	W	Z
Ν	0	Р	Q	R	S	Т	U	V	W	Х	Y	Ζ
u	m	v	i	а	у	e	d	n	h	b	0	f

In each of the following questions, a group of six capital letters is given and its equivalent code is given below. Select the response containing the correct code.

108. AXPBTY

♦ Coding-Decoding ♥ 1-7

(a) lkcvmf (b) lbvseo (c) afdber (*d*) golnrp, **109.** CHWCLS

(a) gsrxvn (b) gtxcoy (c) pyfkol (d) pchpwy 110. JBEGPV

(a) gsrxvn (b) gtxcoy (c) pyfkol (d) pchpwy

DIRECTIONS (111–112): *Given below are letters A to Z. Under* each capital letter, a small letter is written which is to be used as a code for the capital letter:

А	В	C	D	Е	F	G	Н	Ι	J	Κ	L	Μ
f	0	i	1	q	У	b	m	t	v	g	e	r
Ν	0	Р	Q	R	S	Т	U	V	W	Х	Y	Ζ
u	X	a	w	z	i	n	р	с	h	k	s	d

With the help of the given codes (small letters) select the equivalent capital letters for the following;

111.	efsogc	
	(a) LZIOVK	(b) TABKVY
	(c) LAYBKV	(d) TPCPVK

112. gulpbh (b) KNDUGW (a) KNGWUD

(4)	III IO II OD	(\mathcal{O})	1110000
(<i>c</i>)	KDUGWN	(d)	KNDGWU

- 113. If LSJXVC is the code for MUMBAI, the code for DELHI is [CSAT 2018]
 - (a) CCIDD (b) CDKGH (c) CCJFG (d) CCIFE
- 114. In a certain code language, EMPHASIS is written as NDIOBRJR. How do you write CREATURE in that code? (b) QBBDTUSD (*a*) SBBDUTSD [APPSC] (c) DSDBSTSP (d) SBDBUTDS
- 115. In a certain code language, G is written as S, L as A, A as O, O as N, N as E, E as G, H as L and S as H. How will HALOGENS be written in that code? [SSC CPO 2018] (a) LNAOSGEH (b) LOANSGEH (c) HOANSGEL (d) HOENSGAH
- 116. In a certain code language, W is written as B, K is written as H, L is written as U, N is written as A, O is written as M, E is written as R, D is written as G, G is written as E, then how will KNOWLEDGE be written in that code? [SSC CPO 2019] (*a*) MAHBERGUR (b) HAMBURGER
 - (c) HAMBUGRED (d) MAHBURGER
- 117. In a code language, if '265' is written as 'PNH', '187' is written as 'OXB', and '248' is written as 'NUB', then which of the following letters represents the number '4'? [SSC CPO 2020] (a) U (*b*) B (c) N (*d*) P
- 118. If 'MOHAN' is coded as 'KMFYL', then 'COUNT' will be coded as:

<i>(a)</i>	ANSKR	<i>(b)</i>	AMSLR
(c)	ANSLR	(d)	AMSKR

- 119. If in a certain code, DIAGRAM is written as AFXDOXJ, then how can PICTURE be written in the code?
 - (a) MFAQSOB (b) MFAQRNB
 - (c) MFZQSNB (d) MFZQROB

		REASONING FOR COMPETITIONS	Scoding-Decodin
120.	In a certain code lange then 'JAPAN' will be (<i>a</i>) MDTDR (<i>c</i>) MDSDR	uage, 'INDIA' is written as 'LQGLD', written as: (b) MDSDQ (d) MDTDO	'SHIFT' written (a) VIKRD (c) VKIDR
121.	If RAMAYANA is wr is written as	itten as BOBZBNBS, then GRANTH	FOIHSAN. How (a) PELBORM (c) ROBLEMP
	(a) JVPCTH(c) IVPCTI	(b) JVOBSH(d) IUOBSH	135. In a certain code FAITHFUL wri
122.	In a certain code la ESBLOTUA. How v code language?	nguage, ABSOLUTE is written as will CALENDAR be written in that	(a) TAFILUFH (c) TIAFLUFH
100	(a) RALNEADC(c) RLAENADC	(b) RANLAEDC (d) RLANEADC	How is DERIVA (a) ONVAEDI
123.	If GOPAL is coded as: (<i>a</i>) XTJBG (<i>c</i>) XVJBG	(<i>b</i>) XUJCG (<i>d</i>) XUJBG	(c) ONVADER 137. If 'Developme 'Evalution' will (a) Notievalua
124.	If BLACKSMITH CHILDREN will be of (a) DIJMESFO (c) DJINETEP	is coded as CNBELUNKUJ, then coded as: (b) DIJMEYEP (d) DJJNETFP	(c) Notiaevalu138. If in a certain QBXZEBO, the language?
125.	If RATION is written written as: (<i>a</i>) OXPEHU (<i>c</i>) KTLADQ	as OXQFLK, then LUMBER may be (b) IRJYBO (d) ITJABQ	 (a) PQRBAQK (c) PQRKBAQ 139. If 'ARATHY' is be:
126.	If HOUSE is written written in that code? (<i>a</i>) SHBGD	as FQSUC, then how can CHAIR be (b) AJYKP	 (a) TZTUFN (c) TZFNUT 140. If in a code, GOI
127.	 (c) DIBJS In a certain code la CHOAPRAP. How w (a) CTRISTRE (c) CTRISTER 	(a) SBID anguage, APPROACH is coded as vill RESTRICT be coded? (b) TCIRSTRE (d) ERTSIRTC	(a) EUKY (b) 141. If EARTHQUA ELECTORATE (a) ETAROELI
128.	In a certain code, 'A How is 'AROUND' v (a) BSPTMC (c) BSPUNT	MOUNT' is written as 'BNPTMS'. written in that code? (b) BSUPTN (d) ZXPVOE	 (c) ETAROTC 142. If BUDDHISM i will be coded as (a) EITUVKBI (c) EITKVUUC
129.	If FRIEND is coded a be written in that cod (a) DCQHQK (c) EDRIRL	 as HUMJTK, then how can CANDLE e? (b) DEQJQM (d) ESJFME 	143. If MOMENTU MAGNETIC wi (a) NGMAEIT (c) NGAMETI
130.	If THEN is written a written in that code? (a) AEPJ (b) API	as RLBS, then how many CASE be EJ (c) PAEJ (d) EPAP	144. If DECEMBER will be coded as (a) EFRBUAY
131.	In a certain code, GI written as EVRO. Ho (<i>a</i>) KDSI (<i>b</i>) SIK	VE is written a VIEG and OVER is w will DISK be written in that code? D (c) SIDK (d) KISD	(c) EFRBUAR 145. If GOODNESS GREATNESS c
132.	In a certain code lang as APSOLHIT. How y in that language?	uage, the word HOSPITAL is written will the word BUOYANCY be written	(a) HQFZUFR (c) HQFZUMF 146. In a certain co
133	(a) CUYOYBAN(c) YBANCYOUIn a certain code 'MC	 (b) CYOUYBAN (d) CUOYYBAN (d) Second State (Construction) (d) CUOYYBAN 	'RGAINHS'. Ho (a) NEGIOUS (c) GENOISU

133. In a certain code 'MOUSE' is written as 'PRUQC'. How is

> C	oding-Decoding 🖑 🛛 1-	8	
	'SHIFT' written in that cool(a) VIKRD(c) VKIDR	ie? (b) (d)	RKTVD VJIDR
34.	In a certain code langu FOIHSAN. How is PROB (a) PELBORM (c) ROBLEMP	age LEN (b) (d)	, FASHION is coded as I coded in that code? PRBOELM RPBOELM
35.	In a certain code, TEMPLE	E is v	vritten as METELP. How is
	(a) TAFILUFH(c) TIAFLUFH	(b) (d)	TIAFFULH TAIFULFH
36.	In a certain code DEPUTATI How is DERIVATION writ (<i>a</i>) ONVAEDIRTI (<i>c</i>) ONVADERITI	(ON tten (b) (d)	is written as ONTADEPUTI. in that code? ONVADEIRIT ONDEVARITI
37.	If 'Development' is wri	tten	as 'Tnemdevelop', then
	'Evalution' will be written(a) Notievalua(c) Notiaevalu	as: (<i>b</i>) (<i>d</i>)	Noitevalua Noitaulave
38.	If in a certain code lang QBXZEBO, then how is	uage STU	e, TEACHER is coded as IDENT coded in the same
	(a) PQRBAQK (c) PQRKBAQ	(b) (d)	PQRABKQ PRKQBAQ
39.	If 'ARATHY' is coded as 'E	SBU	JIZ' then 'SYSTEM' should
	be: (a) TZTUFN (c) TZFNUT	(b) (d)	TZTFNU TFUZTN
40.	If in a code, GONE is written be written in that code?	en as	ILPB, then how may CRIB
41.	If EARTHOUAKE is con	ded	as EKAUOHTRAE, then
	ELECTORATE will be coo (a) ETAROELECT (c) ETAROTCELE	ded a (b) (d)	EARTOTCELE ETAROCTELE
42.	If BUDDHISM is coded as 1	DWI	FFJKUO, then CHRISTIAN
	will be coded as:(a) EITUVKBP(c) EITKVUICP	(b)	EJTKUVJCO FITKUVKCP
43.	If MOMENTUM is co	ded	as EMOMNTUM, then
	MAGNETIC will be codec (a) NGMAEITC (c) NGAMETIC	das: (b)	NGAMECTI
44.	If DECEMBER is coded as 1	EDE	CBMRE, then FEBRUARY
	will be coded as:(a) EFRBUAYR(c) EFRBUARY	(<i>b</i>) (<i>d</i>)	EFBRAUYR EFRBAUYR
45.	If GOODNESS is coded	1 as	HNPCODTR, then how
	GREATNESS can be writt (<i>a</i>) HQFZUFRTM (<i>c</i>) HQFZUMFRT	en ir (b) (d)	n that code? HQFZSMFRT HQFZUODTR
46.	In a certain code langua	ge, '	GARNISH' is written as
	(<i>a</i>) NEGIOUS (<i>c</i>) GENOISU	enic (b) (d)	ENGOIUS NGEOISU

F	REASONING FOR COMPETITIONS	☆ Coding-Decoding
147. In a certain code, MISCH How is RELIEVED writt (a) SGOMJBLL (c) SGOMJVED	HEF is written as NKVGMOLN.ten in that code?(b) SFMJFWFE(d) SEOIJVLD	 162. If 'MATTER' can be coded as 'AMTTRE', then how would you code 'LENGTH'? [UP Police 2018] (a) HTGNEL (b) ELGNHT (c) ELNGHT (d) ENLGHT
148. In a certain code, 'RATIC would 'TRIBAL' be writt(a) TIRLBA(c) TRIALB	DN' is written as 'RTANIO'. How ten in the same code? (b) TIRABL (d) TIRALB	 163. If 'METHOD' can be coded as 'EMHTDO', then how would you code 'PRACTICE'? [UP Police 2018] (a) RPACTICE (b) RPCAITEC (c) RPCATIEC (d) RPCATICE
149. If MOBILE is written as can be written in that code	s ZAMSUM, then how TUMOR	(<i>a</i>) APLPE (<i>b</i>) APPEL (<i>c</i>) ELPAP (<i>d</i>) ELPPA
 (a) HGYAD (c) IHZBE 150. If in a certain code HYDE then how can ANTIMON (a) CPVKOQPR 	 (b) GGXYA (d) BRAIN ROGEN is written as JCJZYSSD, IY be written in that code? (b) CRZQWABO 	 165. If 'CHANTING' can be coded as 'HCNAITGN', then how would you code 'PINCHING'? [UP Police 2018] (a) IPNCHIGN (b) IPCNIHGN (c) IPCNHIGN (d) GNIHCNIP 166. If CENTAUR is coded as ACLRYSP, then how will HOP is coded as? [UP Police 2018]
 (c) ERXMQSRC 151. If FIREWOOD is written as? (a) ARFTTCNO (c) CARENOIT 	 (d) GTZOSUTE en as ERIFDOOW, then how is (b) NOITCARF (d) CRAENOIT 	 (a) PGD (b) FMN (c) WSX (d) RFV 167. If HELIPAD is coded as JGNKRCF, then how will BUY be coded as? [UP Police 2019] (a) ACE (b) FHJ (c) DWA (d) KMO 168. In a certain code language 'BPOWSE' is written as
 152. In a language, FIFTY is v TAR as TOL. How can TA (a) TOEFDD (c) TOLACC 	 (a) CRATTOTT written as CACTY, CAR as POL, ARIFF be written in that language? (b) TOEFEL (d) TOLADD 	 'GUYQTD'. How will 'AMALGAM' be written as in that language? [CHSL 2020] (a) PMDGCPD (b) CONCICO (c) DPMDGCP (d) OCINCOC 160. In a contain language code 'SMAPT' in written on AMPST.
 153. In a code language if FR 'CLOSE' should written (a) XOMHV (c) WNMIU 	ANK is written as UIZMP, then as [APPSC] (b) YPMIW (d) XOLHV	109. In a certain language code, SMART is written as AMRS1. How will 'DESIGN' be written as in that language? [CHSL 2020] (a) DEGINS (b) SGITMD (c) EIADGS (d) DAISGN
 154. In a code language if TO SPARE should be writter (a) HKZVI (c) HKZIV 	OWN is written as GLDM, thenn as[APPSC](b) HLZIV(d) HIZKV	 170. In a certain code language, if 'BURMUD' is written as 'RKHCKT', then how will 'ANGLE' be written as in that language? [CHSL 2020] (a) QDWBU (b) HOPLY (c) PCVAT (d) REXCV
155. In a code language if TASI should be written as(a) OSWJ (b) OSWI	K is written as WEXQ, then LORD [APPSC] (c) ORWJ (d) OSVJ	 171. In a certain code language 'APRICOT' is written as 'GLXRIKZ' then how will 'ORANGE' be written in the same code language? [CHSL 2020] (a) LHZMSV (b) LIZMTV (c) VTNZHM (d) VTMZII
RASH should be written (<i>a</i>) TBUJ (<i>b</i>) SCUJ	as [APPSC] (c) TCUJ (d) TCVI	 172. In a certain code language, PAGER is written as MIDOO. How will ANGEL be written as in that language? [CHSL 2020] (a) IKDOL (b) AVIDL (c) AOIDIK (d) II VDN
157. WISE is coded as XKVI,(a) UCON (b) VCON	TALK will be coded[APPSC](c)UCOO(d)UCOP	173. In a certain language, JONAIL is written as IRMDHO. How will PLMUTG be written as in code language? [CHSL 2020]
158. LATE is written as GWQC (<i>a</i>) KJRP (<i>b</i>) KKRQ	C; POUR will be written as [APPSC] (c) KJPR (d) KKRP	(a) OPLXSJ (b) OOLXŘK (c) OOLXSJ (d) OOLYTJ
159. If HOLIDAY is coded as be coded as?	S ELIFAXV, then how will SUM [UP Police 2019]	How will 'mango' be written as in that language? [CHSL 2020] (a) phobn (b) uhpen (c) uhobn (d) uhoen
 (a) FKJ (b) EHK 160. If NAUGHTY is coded a be coded as? (a) AEI (b) JNR 	s MZFTSGB, them how will LIE [UPPCS 2019] (c) SWA (d) ORV	 175. In a certain language, 'MARINE' is written as 'IRMVEQ'. How will 'BEAUTY' is written as in that language? (a) CXYEIF (b) CIGZYD (CHSL 2020] (c) CDOPLY (d) CJHZE
161. In a certain code lang NTNABH. How will KA language?(a) JBMQTS(c) LZOOVQ	uage, MUMBAI is written as NPUR be written as in the same [UP Police 2018] (b) NAKRUP (d) LBOQVS	 176. In a certain code language, 'CHART' is written as 'TRACH' and 'CLOSE' is written as 'ESOCL'. How will 'WORLD' be written in the same code language? [DP 2020] (a) DLROW (b) DLRWD (c) DLRWO (d) OLRDW

	REASONING FOR COMPETITIONS	♥ C	oding-Decoding & 1-10
177.	In a code language, 'LOCAL' is written as 'mmfwq'. How will 'GLOBAL' be written as in that language? [DP 2020] (a) hjxde (b) hjwhg (c) hixgf (d) hjrxff		 'BEST' is written as 'CDFTU'. How will 'MARKS' be written in that language? [SSC CPO 2020] (a) NZBSLT (b) OZBSMT (b) NZCSUT
178.	In a certain code language, "FEARS" is written as "HHCUU". How is "STAIR" written in that code language?(a) VWLTC(b) CLTUW[DP 2017](c) UWCLT(d) WCTLX	192.	 (c) NABLU (d) NZCSLT In a code language, 'PLACARD' is written as 'TPEYEVH'. How will 'MONSTER' be written in that language? (a) QSROXIV (b) RTSOXIV [SSC CPO 2020] (c) QSRDXW (c) RESOXIV
179.	In a certain code language, 'ENSOUL' is written as 'IJWKYH'. What is the code for 'CHEWED' in that code language? [DSSSB 2019] (a) GDHSHZ (b) GCDSCZ (c) GDCSCZ (d) GDISIZ	193.	 (c) QSRRATV (a) PSSOAJV In a code language, 'OBESITY' is written as 'EBOHYTI'. How will 'FIXTURE' be written in that language? (a) XIFGEUS (b) XIFMERU [SSC CPO 2020] (c) XIFGERU (d) IFYGERU
180.	If in a certain code, BROOM is coded as EURRP, then howis EURRP coded?[DSSSB 2019](a) HXVVS(b) GXUUS(c) HXUUS(d) HXUUR	194.	In a code language, 'PLUM' is written as 'KQOMFVNN'.How will 'BIG' be written in that language? [SSC CPO 2020](a) YCRKTM(b) YCRJTH(c) CYRJGT(d) XCSJTH
181.	If RAJESH is coded as SBKFTI, there how is URMILAcoded?[DSSSB 2018](a) TQLHKZ(b) VSNHMB(c) BMJNSV(d) None of these	195.	In a certain coding system, if CHICANERY is written as DNODTHVKS, how will CRANE be written in the same coding system? [SSC CPO 2020] (<i>a</i>) DKTHV (<i>b</i>) HKSHO (<i>c</i>) CJSGU (<i>d</i>) DOTKV
182.	If LOTUS is coded as RTXXU, then FLOWER is coded as (a) LQSZGS (b) MRTAHT (c) MQTAHR (d) LQSAGR	196.	In a certain system, if OXBRIDGE is written as BDEGIORX, how will MOUTHFUL be written in the same coding system? [SSC CPO 2020]
185.	If in a certain code, SUMMIT is written as KSQRGK ,then how will 'UMPIRE' be written in that code? [RRB JE 2019](a) NKSCPG(b) NKCSPG(c) NKSPCG(d) NKSCGP	197.	 (a) HFULMOUT (b) FGLNOTUU (c) FHLMOTUU (d) FLHMOTUV If VARANASI is coded as WCUESGZQ, then the code of
184.	In a certain code, 'BRACKET' is written as 'DPCAMCV'. How is 'BLOCK' written in that code? [RRB JE CBT-1, 2019] (a) DIQAM (b) DJQAM (c) DIPAM (c) DIQAN	198	KOLKATA will be:[UGC NET 2018](a) HLZEOOQ(b) ZELHOQO(c) LQOOFZH(d) LOQOZEHIf the code of ALLAHABAD is DPOGOIKKO, then the
185.	In a certain code, 'NATION' is coded as 'OCWMTT'. How would 'COUNTRY' be written in that code? [RRB JE 2019] (<i>a</i>) DCXRYCF (<i>b</i>) DPXRYXF	170.	in the code of AELAHADAD is DI GOOIRRO, then the code of BENGULURU will be[UGC NET 2018](a) ESBTBDIMF(b) MBDBFEIST (c) EISMBTDBF(d) ESBDFBTMI
186.	 (c) DQXRYXF (d) DCXRYXF In a certain code, 'ABC DEF' is written as 'ZYX WVU'. How would 'ADULT' be written in that code? [RRB JE 2019] (a) ZWUOU (b) ZWFOR 	199.	In a certain code THRIVES is written as SIUHRDU. Howis SOULFUL written in that code?[KVS 2015](a) VPTKKTE(b) VPTKETK(c) TPVKKTE(d) TNRKMVG
187.	 (c) ZWFOG (d) ZFWOU If 'ADVENTURE' is coded as 'ERUTNEVDA', how is 'GREEN' coded? (a) NEEGR (b) ENEGR 	200.	In a certain code CONQUER is written as MNBRQDT.How is STEAMER written in that code?[KVS 2015](a) DRSBQDL(b) DSRBLDQ(c) DSRZQDL(d) DSRBQDL
188.	 (a) NEERG (b) ENEOR (c) NEERG (d) GEREN In a certain code, 'TRIPPLE' is written as 'SQHOOKD'. How is 'DISPOSE' written in that code? [RRB JE 2019] (a) CHRNORD (b) CHRONDR (c) CHRONDR 	201.	In a certain code, if ZIGZAGGING is written as AZGIZGNIGG, then how will BLIZZARDLY be written as in the same code? [RRB ALP 2018] (a) ZZILBYLDRA (b) ZZILBIYLDRA (c) ZZILBYLDRA (d) ZZILBYDRA
189.	 (c) CHKONKD (d) CHRORND If in a certain code, 'HEAVY' is written as 'ICBTZ', then how will 'QUICK' be written in that code? [RRB JE 2019] (a) RSJAL (b) OSJAL (c) RSKAL (d) RSAJL 	202.	In a code language, BACHELOR is written as SNMDIBBA. How will COHESION be written as in that language? [SSC CPO 2019] (a) ONIFTIBP (b) ONJRFGPB (c) NPHTDIND (d) RPITEINO
190.	In a certain code, CATHODE is written as X5GS2W4. How will RELATION be written in that code? [SSC CPO 2018] (a) J4O1G32N (b) I3O1G32M (c) I4O5G32M (d) J3O5G32M	203.	 (a) BEJTEINO (a) BEJTEINO In a code language, MACHINE is written as CAMHENI. How will MONSTER be written as in that language? (a) OMNSETR (b) NOMSRET [SSC CPO 2019] (c) NOMSRET [SSC CPO 2019]
191.	In a code language, 'TORCH' is written as 'UNPSDI' and		(c) SNOMRET (d) NOMETSR

	REASONING FOR COMPETITIONS	♥ Coding-Decoding ♥ 1-11
204.	In a code language, HONEY is written as G4M2X. How is STATUE written in that language? [SSC CPO Tier-1, 2019] (a) RS1S5D (b) TS1S5D (c) RS1T5D (d) RS1S52	215. In a certain code language, 'JAIPUR' is written as 'AJPIRU' and 'BHOPAL' is written as 'HBPOLA'. How will 'INDORE' be written in that language? [SSC GD Constable 2021]
205.	If in a certain code COMPUTER is written as BNLOTSDQ, then which of the following code would be written for SOFTWARE? [UPPCS 2019]	(a) NIODER(b) DINRUP(c) NDOIER(d) DNEERO216. In a certain code language, 'AND' is written as 'C-LP-F' and
206	 (a) RNESVBQD (b) RNESABQD (c) RNESABCD (d) RNESVZQD If in a certain 'DATE' is written as 'WZGV' then which of	 'NOR' is coded as 'P-MQ-T'. How will 'BUT' be written in that language? [SSC CGL 2021] (a) C-SU-V (b) D-SW-V
200.	the following code would be written for 'COME'? (a) XLNV (b) LXNV [UPPCS 2019] (c) VNXI (d) XLVN	 (c) C-TV-W (d) D-SW-U 217. In a certain code language, 'MARGIN' is written as 'SBNOIH' How will 'PRAYER' he written in that
207.	In a certain code language, if EXTRNSIC is written as CIXESNRT, then how will LEFTWING be written in the same code language? [SSC MTS 2021]	SBROJH : How with TRATER be written in that language?[SSC CGL 2021](a) BSQZFS(b) QSBSFZ(c) BSQQFZ(d) BSQSFZ
208.	 (a) GNELIWTF (b) ELGNTFIW (c) GNIWTFEL (d) TFELGNIW In a code language, SILVER is written as JDQMXQ and 	218. In a certain code language, 'PRINT' is written as 'YMNIU'. How will 'MAGIC' be written in that language? [SSC CGL 2021]
	WISDOM is written as IDRJXR. How will KENSTAR bewritten as in that language?(a) FZPWINY(b) FZPIWNY	(a) HRLZR (b) HDLVR (c) HLDRV (d) HRLRZ
	(c) FZWIPYN (d) FPZWINY	TYPE 3. Symbol Coding
209.	In a certain code language, PROFANE is written asKOLCZKV. How will DISOBEY be written in thatlanguage?(a) APRYLVV(b) WFHLYBB(c) WHGYLBB(d) ARPLYVV	 219. In a certain code language, ROM is written as α × @ and HEIGHT is written as € ÷ β © €*. How will TIGER be written in that language? [SSC GD Constable 2021] (a) *β©÷@ (b) ©÷@*β (c) ×÷β©* (d) *β©÷α
210.	In a certain code language, 'PERMIT' is written as 'VVLNOG'. How will 'INERTIA' be written in that language? [SSC CGL 2021] (a) OHYXZCU (b) XOYHCZU (c) OMYIZRU (d) XYOHBCU	 220. In a certain code language, 'PEPPER' is written as '@#@@#↑' and 'AIM' is written as '^?*'. How is 'PAMPER' written in that code language? (a) @↑*@#^ (b) @↑*#@^ (c) @^*#@#^ (c) @^*#@^
211.	In a certain code language, 'COUNTRY' is written as 'BOWKXLF'. How will 'DESPAIR' be written in that language? [SSC CGL 2021] (a) ULDSVHG (b) UFDMVBG	 (c) @ @ # 1 (d) @ # @ 1 221. If WING is written as *£?= and THEN as @\$©?, then how will NITE be written? (a) ?\$©@ (b) ?£@© (c) ?\$@© (d) ?£©@
212.	(c) GBVMDFU (d) GBPSXIO In a certain code language, 'DOLPHIN' is written as 'EPMPGHM' How will 'CORDIAL' he written in that	 222. In a certain code, 'R' is '%', 'E' is '#', 'D' is '@' and 'A' is 'Δ'. How is 'DARE' written in that code? (a) @#%Δ (b) Δ%@# (c) Δ@%# (d) @Δ%#
	In the Grant Problem in the second	223. If 1986 is coded as $\land \theta \Delta >$ and 2345 as $+ \times - \uparrow$, then $\Delta > - \times + \uparrow$ will be the code for (a) 864325 (b) 864952 (c) 865324 (d) 865423
213.	In a certain code language, 'MORBID' is written as 'THGMID'. How will 'OBTAIN' be written in that language? [SSC CGL 2021] (a) JGOFDS (b) JOFGSD	 224. If αδγχε is decoded as ARGUE and σφλπε is SOLVE, what is πγεσδλ? (a) VGOSRL (b) VUESOL (c) VUASEL (d) VGESPL
	(c) GJFOSD (d) GFOJDS	(c) VOASEL (a) VOESKL 225 In a contain code Die $\#$ A is $\%$ C is a and E is (a) Here is
214.	In a certain code language, 'FAMILY' is written as 'QXBJSD'. How will 'FILMY' be written in the that language? [SSC GD Constable 2021]	^{225.} If a certain code, P is #, A is %, C is ϕ and E is @. How is 'PACE' written in that code? (a) $\#\phi \#\%$ (b) $\phi\% @\%$ (c) $\#\%\phi @$ (d) $\% @\#\phi$
	(a) QXBSD (b) QDSBX (c) QBJSD (d) QJSBD	 226. If 'PENCIL' is coded as ? @, =; 7 and 'PAPER' is coded as ? 9 ? @ 5 how will you code 'CLIP'? (a) @7; ? (b) @?;? (c) =7?; (d) =7;?

REASONING FOR COMPETITIONS Coding-Decoding \swarrow 1-12

(d) 58647

227. Given below are numbers in the first line and symbols in the second line. Numbers and symbols are code for each other. Choose the correct code for given symbols.

1 2 3 4 5 6 7 8 9 β + × ≠ ↑ \rightarrow ÷

Which number can be decoded from the following:

 $\neq \Box \uparrow \times \rightarrow$ (a) 57638 (b) 58637 (c) 57648

228. Following words are written in a code language. Study them carefully and find out the word to the given code.

 $CAR - \phi \alpha \delta$

 $SIT - \eta \psi \kappa$

WELL – $\sigma i \gamma \gamma$

 $MAP - \mu \alpha \beta$

- Given code $\phi \alpha \gamma \mu$
- (a) CARP (b) CARE (c) CALM (d) CAMP
- **229.** Given below are capital letters in the first line and symbols in the second line. Symbols and letters are codes for each other. Choose the correct code for the given letters.

А	С	Е	(Ĵ	H	[Ι	0	N
+	_	÷	;	< =		-	()	[
Р	R	Т	Т		S		В	D	М
]	¥			Ŧ	#	`	\(\)	>	<

HEIGHT

$$(a) = + (\times \parallel = (b) = \div (\times = (c))$$

(c) = + (× = || (d) = ÷ (× || =

230. In a code language, the following alphabets are coded in a particular way:

А	В	С	D	I	E	F	G	
*			⋕		*	╬	F	
Н	Ι	0	Р	R	S	Т	U	
╡ ╟		+)	^	<	>	\	

Which word can be decoded from the following? $| \neq \dagger <>$

(a) BOAST (b) BOARD (c) BIRDS (d) BROAD

231. The question given below is based upon the following set of codes:

Digit	1	3	5	4	6	0	8	7	2
Code	A	0	Ζ	L	D	Т	Ν	Н	Q

Find the code for 21504.

- (a) QNHOL (b) QAZTL
- (c) QADTL (d) QDZON
- **232.** In a code language, the following alphabets are coded in a particular way:

A	B	С	M	Ν	F	G	U	V	Н	T	Р	R	S	Т	0
1	Ĩ	Ĩ	1	Ì	Î.	I	Ĩ	i	Ĩ	Î	Î		Ĩ	Î	Ĭ
¥	¥	¥	¥	¥	¥	¥	¥	¥	¥	¥	¥	¥	¥	¥	¥
?	!	;	:	•	C	(a)	>	<	α	β	\oplus	×	*	ω	η

Which word can be decoded as $2 \oplus \oplus \times n^2 : \alpha$

· •	U×11.,u		
<i>(a)</i>	AMMONIUM	<i>(b)</i>	ACCOUNTS
(<i>c</i>)	APPROACH	<i>(d)</i>	APPPROVAL

Type 4. Substitution Coding

- 233. If 'red' is called 'white', 'white' is called 'blue', 'blue' is called 'green', 'green' is called 'orange' and 'orange' is called 'pink', then what is the color of 'grass'?(a) white (b) green (c) orange (d) pink
- 234. If pen is called paper, paper is called laptop, laptop is called eraser, eraser is called bottle then where do we write?(a) laptop (b) paper (c) pen (d) None of these
- 235. If 'A' is written as 'C', 'C' is written as 'F', 'F' is written as 'O', 'O' is written as 'E', 'E' is written as 'B' and 'B' is written as 'G', then how 'coffee' will be written?
 (a) AFCCOO
 (b) FEOOBB
 (c) FAOOCC
 (d) None of these
- 236. If cat is called as dog, dog is called as goat, goat is called as horse, horse is called as lion, lion is called as Hen, then who among these is not a pet animal?
 (a) Lion (b) Horse (c) Hen (d) None of these
- **237.** If 'air' is called 'green', 'green' is called 'blue', 'blue' is called 'sky', 'sky' is called 'yellow', 'yellow' is called 'water' and 'water' is called 'pink' then what is the colour of clear 'sky'?
 - (a) green (b) blue (c) sky (d) water
- 238. If 'orange' is called 'butter', 'butter' is called 'soap', 'soap' is called 'ink', 'ink' is called 'honey' and 'honey' is called 'orange', which of the following is used for washing clothes? [RRB JE CBT 1, 2019]
 (a) Honey (b) Ink (c) Soap (d) Orange
- 239. In 'Red' means 'White', 'white' means 'Green', 'Green' means 'black' and 'black' means 'Pink', than tell what is colour of milk?
 (a) 1029945
 (b) 129925
 - $\begin{array}{c} (a) & 1023316 \\ (c) & 129825 \\ \end{array} \qquad \begin{array}{c} (b) & 129925 \\ (d) & 129935 \\ \end{array}$

Type 5. Sentence Coding

- **240.** In a certain code, 'BRING WATER' is written as 'JA PA' and 'WATER IS COLD' is written as 'TE JA BO'. How is 'BRING' written in that code?
 - (a) TE (b) JA (c) PA (d) BO
- 241. In a certain code language, 'Sue Re Nik' means 'she is brave', 'Pi Sor Re Nik' means 'she is always smiling' and 'Sor Re Zhi' means 'is always cheerful'. What is the code used for the word 'smiling'?
- (a) Pi
 (b) Sor
 (c) Re
 (d) Nik
 242. In a certain language,
 A. PIC VIC NIC means 'winter is cold'
 B. TO NIC RE means 'summer is hot'
 C. RE TOO PA means 'nights are hot'
 Which of the following is the code for 'summer'?
 - (a) TO (b) NIC (c) PIC (d) VIC

♥ CODING-DECODING ♥ 1-13 = REASONING FOR COMPETITIONS

- 243. In a certain code, '253' means 'books are old'; '546' means 'man is old' and '378' means 'buy good books.' What stands for 'are' in that code?
 - (a) 2(b) 3 (c) 4 (d) 5
- 244. In a certain code language, '481' means 'sky is blue', '246' means 'sea is deep' and '698' means 'sea looks blue'. What number is the code for 'blue'.
 - (a) 8 (*b*) 6 (c) 1 (d) 9
- 245. In a code language, 123 means 'hot filtered coffee', 356 means 'very hot day', 589 means 'day and night'. Which numerical stands for 'very'?
 - (*a*) 5 (*b*) 6 (d) 9 (c) 8
- 246. If 'ski rps tri' stands for 'nice Sunday morning', 'teh sti rps' stands for 'every Tuesday morning' and 'ski ptr qlm' stands for 'nice market place', which word stands for 'Sunday'? (b) rps (c) tri (d) qlm (a) ski
- 247. In a certain code 'easy path to win' is coded as 'ad mi ja no', 'the path to heaven' is coded as 'ku ja ig ad', 'win of the tomorrow' is coded as 'be ku zo mi' and 'to tell of night' is coded as 'be li ya ja'. What is the code used for the word 'tell'?
 - (*a*) be
 - (d) Cannot be determined (*c*) ya

(*b*) li

- 248. In a certain language, 'colors of the sky' is written as 'ki la fa so', 'rainbow colors' is written as 'ro ki' 'sky high rocket' is written as 'la pe jo' 'the rocket world' is written as 'pe so ne'. Which of the following is the code for 'colours sky high'?
 - (a) Ro jo la (b) ki jo la
 - (c) la ki so (d) Fa ki jo
- 249. In a certain language, 'aa be rs' means 'go went gone', 'ub rs wa' means 'you go home', 'wa de' means 'you want' And 'lo aa' means 'went do'. What is the meaning of the code 'wa'? (*b*) do (c) home (*a*) you (*d*) go
- 250. In a certain code, 'gray clothes are fancy' is coded as 'la pa zi ta', 'new clothes are gray' is coded as 'pa zi la sa', 'design are very nice' is coded as 'na hi ga pa' and 'gray color and design' is coded as 'zi mi jo ga'. What is the code for the word 'color'?

(b) zi

- (a) jo
- (d) either mi or jo (c) mi
- 251. In a certain code, '256' means 'red colour chalk', '589' means 'green colour flower' and '254' means 'white colour chalk'. The digit in the code that indicates 'white' is (*a*) 2 (*b*) 4 (c) 5 (*d*) 8 [CSAT 2017]
- 252. In a certain code, Sa re ga ma means "island of the dead", ga pa re dha means "The End of Time," na se ma pa means "It is dead end". Then, which of the following could mean "Time of the Jackal"? [APPSC]
 - (*a*) Sur ga re pa (b) Ga sur pa ma
 - (c) re ga sur dha (d) ga re dha ma
- 253. If 'pou' is code for "monkey" and 'ga pur do ma' means" the Jackal is dead" What is the code for "The monkey is dead"? [APPSC]
 - (b) ga do pou ma (a) ga sur ma pou
 - (*c*) sur do gol po (d) cannot be determined
- 254. In a certain code language "567" means "black tall man",

"859" means "curly black hair", and "167" means "fat tall man", then in this code language "1" stands for: [RAS 2015] (a) black (*b*) fat (c) curly (d) tall

- 255. In a certain code language 'goolo yearn' means 'blue sky'; 'silko spadi' means 'bicycle race' and 'goolo silko' means 'blue bicycle'. Which word may mean 'race car'? [RAS 2015] (a) silko zwet (b) spadi silko (c) goolo breli (d) spadi volo
- **256.** In a code language, 817 means 'cotton makes thread', 827 means 'thread makes cloth' and 213 means 'soft cotton cloth'. Find the code for 'soft'. [UP Police 2019] (c) 2(*a*) 3 (b) 1 (d) 7
- 257. In a code language 319 means 'ice is cold', 431 means 'winter is cold', 249 means 'ice in winter'. Find the code for 'in'. [UPPCS 2019] (a) 9 (b) 4 (c) 1 (d) 2
- **258.** In a code language, 972 means 'steel is strong', 298 means 'iron is strong' and 387 means 'iron and steel'. Find the code for 'and'. [UP Police 2018] (*a*) 7 (b) 8 (d) 3 (c) 2
- 259. In a code language, 639 means' water is drink', 316 'juice is drink' and 219 means 'water or juice'. Find the code for 'or'. [UP Police 2019] (*a*) 1 (c) 9 (b) 2(d) 3
- 260. If in a certain code, 'bir le nac' means 'green and tasty', 'pic nac hor' means 'tomato is green' and 'coc bir hor' means 'food is tasty', which of the following means 'tomato is tasty' in that code? [RRB JE, 2019]
 - (a) pic le coc(b) hor bir pic
 - (c) bir le hor (d) pic hor nac
- 261. In a certain code language, 123 means 'hot filtered coffee'; 356 means 'very hot day' and 589 means 'day and night'. Which digit stands for 'very'? [RRB JE 2019] (a) 9 (*b*) 5 (*c*) 8 (d) 6
- 262. In a certain code, 'kemp lamp tems' means 'speak the truth', 'bis tim nak' means 'always seek knowledge', 'tim tems sik' means 'knowledge is truth' and 'lik bis zap' means 'never seek violence'. Which of the following stands for 'always'? (a) bis (b) zap [RRB JE 2019] (c) tim (d) nak
- 243. In a certain code language 'no more food' is written as 'ta ka da', 'more than that' is written as 'sa pa ka'. How is 'that' written in that code language? [RRB JE 2019] (*a*) da (*b*) ka (c) sa or pa (d) ta or da
- **264.** If 'nitco sco tingo' stands for 'softer than flower', 'tingo rho mst' stands for 'sweeter flower fragrance' and 'mst sco tmp' stands for 'sweeter than smile' what would 'softer' stand for? [RRB JE CBT, 2019] (a) mst (b) tingo (d) nitco (c) sco
- 265. In a code language, if 'you are there' is written as 'ter der jer'. 'we stay here' is written as 'yer mer ner', 'we are late' is written as 'ser ner der', and 'I stay there' is written as 'yer fer jer', then how would 'you stay late' be written in this language? [SSC CPO 2020]
 - (a) ter ver mer (b) ter ver ser
 - (c) ter mer ser (d) der yer ser

♥ CODING-DECODING ♥ 1-14 = **REASONING FOR COMPETITIONS**

- 266. In a code language, if 'I like chocolate' is written as '958', 'we bought chocolates' is written as '153', and 'we like them' is written as '816', then how would 'I bought them' be written in this language? [SSC CPO 2020] (*a*) 936 (*b*) 251 (*d*) 859 (*c*) 951
- 267. In a code language, if 'fast and furious' is written as 'co mo jo', 'do it fast' is written as 'cha mo ga', and 'she did it' is written as 'ga la nop', then what will be the code for the word 'do' in this language? [SSC CPO 2020] (a) nop (*b*) ga (d) cha (*c*) mo
- 268. In a certain coding system, 'how are you' is coded as '639', 'are you fine today' is coded as '6453', and 'stay fine' is coded as '58'. What is the code for 'today' in this system? (*a*) 5 (*b*) 8 [SSC CPO 2020] (c) 4 (d) 6
- 269. In a certain system 'Read this book' is coded as '689'. 'This book is useful' is coded as '9675', and 'Useful book is good' is coded as '5479'. What is the code for 'This book is good' in this system? [SSC CPO 2020] (*a*) 8495 (*b*) 6457 (*d*) 7859 (c) 4965
- 270. A person wired his brother as R T D F M O C E L N N P S U G I D F Q S R T N P N P M O and he meant "Send mother soon". A day later he received the reply, LNNPSUGIDFQSHJRTHJKMKM. What did he mean?

[APPSC]

(*a*) Mother is arriving (b) Mother cannot come (*d*) Mother not here (c) Mother is ill

DIRECTIONS (271–273): Read the following information to answer these questions: [KVS 2013]

In a certain code, 'il be pee' means 'roses are blue', 'sik hee' means 'red flowers' and 'pee mit hee' means 'flowers are vegetables'.

271. How is 'red' written in that code?

(d) None of these (a) hee (b) sik (c) be

- 272. How is 'roses' written in that code?
 - (a) il (b) pee (*c*) be
 - (d) Cannot be determined
- 273. How is 'vegetables are red flowers' written in that code?
 - (a) mit pee sik hee (b) pe isk mit thee
 - (c) sik pee hee be (d) il sik mit hee
- 274. In a certain code language, 'how can you go' is written as 'ja da ka pa'. 'can you come here' is written as 'na ka sa ja' and 'come and go' is written as 'ra pa sa'. How is 'here' written in that code language? [KVS 2015] (d) None of these (*a*) ja (*b*) na (*c*) pa
- **275.** If 'WASP STINGS HARD' is coded as @%Z, HARD TO DEAL is coded as Z65 and HEAL LONG TIME is coded as 896, what is the code for HARD? [RRB 2018] (*a*) 5 (b) @ (c) 9 (*d*) Z

Туре 6. **Conditional Coding**

DIRECTIONS (276–277): In the question given below, there is a group of letters followed by four combinations of digits/ symbols lettered (a), (b), (c), and (d). You have to find out which

of the combinations correctly represents the group of letters and numbers based on the coding system and mark the letter of that combination as your answer.

Number code	6	2	5	0	9	4	7	1	3	8
Codes	А	€	Ζ	μ	Κ	@	Ř	&	\$	Ω

Conditions:

- If the first digit is odd and the last digit is even then both I. digits are to be coded as the code of the second digit.
- If the first digit is even and the last digit is odd then both II. are to be coded as the code for the first digit.
- III. If both the first and the last digits are odd numbers then both are to be coded as '#'.
- IV. If both the first and the last digits are even numbers then both are to be coded as '%'.
- **276.** What is the code of '2394587'?

(<i>a</i>) €\$K#Zび@	(<i>b</i>) €\$K@Zび€
(<i>c</i>) €\$K@Z€び	(<i>d</i>) €\$K@ʊ€Z

- **277.** What is the code of '3721639'?
 - (*a*) #Ř€&A\$% (*b*) #Ř€&A#\$ (*d*) #Ř€&A\$# (c) @Ř€&A\$#

DIRECTIONS (278–279): In the question given below, there is a group of letters followed by four combinations of digits/symbols lettered (a), (b), (c), and (d). You have to find out which of the combinations correctly represents the group of letters based on the coding system and mark the letter of that combination as your answer.

Letters	Р	Е	С	Κ	G	Т	Ι	Ν	S	М	0	А	L
Codes	a	7	#	Ζ	R	α	4	Ř	2	3	&	5	Х

Conditions:

- If both the first and the last letters are consonants, then all I. the vowels are to be coded as the code of D.
- II. If both the first and the last letters are vowels, then both are to be coded by ' \mathbf{v} '.
- III. If the first letter is a consonant and the last letter is a vowel, then their codes are to be interchanged.
- IV. If the first letter is a vowel and the last letter is a consonant, then their codes are to be replaced by the code of 'G'.
- **278.** What is the code of 'PEOPLE'?

(a) &7&7X@	(b) @7&7X@
(c) 77&@X@	(d) 77&7@X

279. What is the code of 'ITALICA'?



REASONING FOR COMPETITIONS 9. 2. (b) We have D R G F 14 18 4 +7 +7 +7 +7 +7 11 21 12 25 14 Similarly, M Η 13 15 20163. (a) We have, A В L Е В Ν Ť Ť 2 Similarly, B (c) We have, D 4. 6154 6 Similarly, R 0 W N Ť 18 15 23 14 →142315186 (d) We have, 5. В R 0 Η Ε R and S ¥ ł ¥ 8 4 2 5 8 4 Therefore, R В Ο В E R S ₹ L ↓ 12 6. **(b)** А K ↓ 11 **↓** 3 \rightarrow 12 × 1 × 3 × 11 = 396 Similarly, D R А G $\begin{array}{c} \downarrow \\ 4 \\ 18 \end{array}$ **↓** 1 $7 \rightarrow 4 \times 18 \times 1 \times 7 = 504$ (b) We consider the opposite alphabet series as shown below: 7. D E ¥ Ť Ζ Х W V Ť ¥ 25 26 24 23 22 ... and so on Clearly, the code for any letter with position number n is given by (26 - n + 1).Now, $A \rightarrow (26 - 1 + 1) = 26$ $X \rightarrow (26 - 24 + 1) = 3$ $R \rightarrow (26 - 18 + 1) = 9$ $A \rightarrow (26 - 1 + 1) = 26$ $Y \rightarrow (26 - 25 + 1) = 2$ X - RAY = 3 + 9 + 26 + 2 = 40 $W \rightarrow (26 - 23 + 1) = 4$ $H \rightarrow (26 - 8 + 1) = 19$ $A \rightarrow (26 - 1 + 1) = 26$ $T \rightarrow (26 - 20 + 1) = 7$ WHAT = 4 + 19 + 26 + 7 = 56. 8. (c) If $A \rightarrow 1$ ↓ 3 20 \rightarrow 3 × 1 × 20 = 60 Similarly, M A N $\rightarrow 13 \times 1 \times 14 = 182$ 13 1 14 -

♦ Coding-Decoding (*a*) 3 5 ↓ P 5↓ 6 ↓ E 2 ↓ Ŕ Therefore, 5 ↓ ₽ 6 ↓ E Ò Å Ŕ 10. (a) We have, A = 1 and ASS = 39Therefore, G R А S S 18 +39 = 64+(Sum of the positions of letters in the alphabetic series). 11. (a) M М Μ 13 13 13 12 (Positions of the alphabets in the alphabetical series). Therefore, R Е Р ↓ 12 **↓** 5 **↓** 9 $2\dot{0}$ 18 16 12. *(a)* Т L Е ₹ 5 Similarly, S 3 0 13. (a) We form the opposite alphabet series as shown below: А B D Ε ↓ Z↓ X ↓ W V 26 25 24 23 22 ... and so on. Clearly, the code for any letter (alphabet) with position number nis given by (26 - n + 1). Now, B = 26 - 2 + 1 = 25E = 26 - 5 + 1 = 22A = 26 - 1 + 1 = 26T = 26 - 20 + 1 = 7 \therefore BEAT = 25 - 22 - 26 - 7. B = 26 - 2 + 1 = 25Similarly, U = 26 - 21 + 1 = 6R = 26 - 18 + 1 = 9S = 26 - 19 + 1 = 8T = 26 - 20 + 1 = 7 \therefore BURST = 25 - 6 - 9 - 8 - 7. 14. (c) M D R А T ↓ 4 N ↓ 2 ¥ 1 ¥ 4 **↓** 3 Therefore, R S ↓ Ν Μ 6 2 5 4 G N ↓ 9 and R ↓ 8 15. *(b)* D ↓ 7 R ↓ 8 B ⊥ ↓ 2 ↓ 5 D ↓ 7 Similarly, R ↓ 8 B E ↓ 0 **G ♦** 6 **↓** 5 K ↓ 11 $\overset{O}{\underset{15}{\downarrow}}_{-8}^{\bullet}$ N ↓ 14 16. (d)Ņ ↓ 13

♦ Coding-Decoding 1-16 **REASONING FOR COMPETITIONS** Thus, the code for any letter is obtained by subtracting 8 from its H position number. 0 Κ ¥ 39 23 16 15 12 11 9 (Position Number) :. HOTEL = 15 + 29 + 39 + 9 + 23 = 115. -8 -8 -8 I_8 26. (d) After assigning even numerical values to the alphabets from A 3 to Z; any alphabet at position *n* is coded as 2*n*. 17. (c) Code for any word = Number of letters -1. Y ↓ 25 ↓ 50 \therefore REASON has 6 letters. Its code is 6 - 1 = 5; BELIEVED has 8 letters. Its code is 8 - 1 = 7; GOVERNMENT has 10 letter. Its code is 10 - 1 = 9. :. LADY = 24 + 2 + 8 + 50 = 84. **18.** (b) $(Nx + M) \div K = 31$ \Rightarrow (Nx + M) \div K = 31 \Rightarrow (11x + 7) \div 2 = 31 27. (a) We have, +2 +2 $\Rightarrow 11x + 7 = 62 \Rightarrow 11x = 55 \Rightarrow x = 5$ +2 $\Rightarrow x = L.$ [:: L = 5]Hence, L must be inserted in the box. Therefore, 19. (c) R ↓ 10 18 **28.** (*c*) We have, Μ RAJ = 18 + 1 + 10 = 29**♦** 0 U ↓ 21 C ↓ A ↓ $\begin{array}{c} T\\ \downarrow\\ 20 \end{array}$ Therefore, M d а **↓** 2 : EDUCATION = 5 + 4 + 21 + 3 + 1 + 20 + 9 + 15 + 14 = 92. **29.** (*c*) We have, N А 20. (b) Η Ť Ť 8 + Ż 20 29 M [Opposite letters] = U Similarly, P 13 [Positions of Opposite letters] 26 21 31 Similarly, D D↓ ¥ Z 21. (d) Z[Opposite letters] W Ŵ W = 82179523 [Positions of Opposite letters] 23 22 26 22. (c) Given: 30. (b) The sum of the letters in the word ROOM is maximum among all the given options. The relation is A, B = 1; C, D = 2; E, F = 3 and so on. $BORE \equiv 2 + 7 + 5 + 6 = 20$ **Note :** The code for any alphabet is determined by the following ROOM = 5 + 7 + 7 + 3 = 22rule: MORE = 3 + 7 + 5 + 6 = 21**Rule :** If *n* is the position of the letter in English alphabet, RARE = 5 + 1 + 5 + 6 = 17. then code is $\frac{n}{2}$ if *n* is even and $\frac{n+1}{2}$ if *n* is odd 31. (c) We have, M Therefore, C **♦** 8 Ġ 23. (d) Given: P Е L N **‡** 2 **‡** 3 **‡** 6 12 12 В L **₽** Therefore, Η E Therefore, 8 A 3 1 N 6 **↓** 2 ↓ E 4 4 ↓ N Ì ₹ E **‡** ₽ 32. (*a*) We have, R Е ¢ 0 P ▼ Ų 24. (d) We have, M R D 13 21 19 Therefore, R ∳ 8 C ↓ 2 Therefore, P R 0 Ë ↓ 15 **↓** 21 \$ 33. (c) As, 18 16 19 Ν 25. (b) After assigning odd numerical values to the alphabets from A 10 19 $^+$ 13 = 71+9

to Z; Only alphabet at position *n* is coded as (2n - 1).

(Positions of the letters in the alphabetic series).

11

D

4

0

4

N ∳ 5



REASONING FOR COMPETITIONS 🖏 CODING-DECODING 🖑 1-18

	Similarly, H O T E L
	8 15 20 5 12
	$\Rightarrow (8 + 15 + 20 + 5 + 12) \div 5 = 12.$
43.	(c) RAHUL $\rightarrow 18 + 1 + 8 + 21 + 12 = 60 \Rightarrow 6 + 0 = 6 \Rightarrow 6^2 = 36$
	$AKSH \rightarrow 1 + 11 + 19 + 8 = 39 \Longrightarrow 3 + 9 = 12 \Longrightarrow 12^2 = 144$
	Similarly, PRIYANKA $\rightarrow 16 + 18 + 9 + 25 + 1 + 14 + 11 + 1 = 95$
	$\Rightarrow 9 + 5 = 14 \Rightarrow 14^2 = 196.$
44.	(b) SHIMLA $\rightarrow 19 + 8 + 9 + 13 + 12 + 1 = 62 \implies 6 - 2 = 4$
	$DELHI \rightarrow 4 + 5 + 12 + 8 + 9 = 38 \Longrightarrow 3 - 8 = -5$
	Similarly,
	INDORE \rightarrow 9 + 14 + 4 + 15 + 18 + 5 = 65 \Rightarrow 6 - 5 = 1.
45.	(c) T A B L E
	$\times 1$ $\times 2$ $\times 3$ $\times 4$ $\times 5$
	20 2 6 48 25
	$\Rightarrow 20 + 2 + 6 + 48 + 25 = 101$
	H I M
	$\downarrow^{\times 1} \downarrow^{\times 2} \downarrow^{\times 3}$
	8 18 39
	$\Rightarrow 8 + 18 + 39 = 65$
	Similarly, H U M B L E
	$\begin{vmatrix} 3 & 21 & 13 & 2 & 12 & 3 \\ \times 1 & \times 2 & \times 3 & \times 4 & \times 5 & \times 6 \end{vmatrix}$
	$\Rightarrow 8 + 42 + 39 + 8 + 60 + 30 = 187.$
46.	
	() (1) (H) (E) (M) = (4) (2) (8) (9)
	W H 1 T \underline{E} = 8 2 $\underline{4}$ 7 $\underline{5}$
	M 1 N E = 4 9 1 2
	$H \qquad 1 \qquad \swarrow \qquad = \qquad 2 \qquad 8 \qquad \checkmark \qquad 9 \qquad \qquad$
	Now. W (7). H (8). $E(4)$. T (5). A (?). So code for A should be
	different, so all these numbers comes in (<i>b</i>) option.
47.	(a) Code for PROGRESS is the difference between the positional
	value of first and last letter
	S - P = 19 - 16 = 3.
	The code for DEVELOPMENT = $T - D = 20 - 4 = 16$.
	Similarly, the code for MANAGEMENT = $T - M = 20 - 13 = 7$.
48.	(a) The logic is: HOTEL = $(5 + 1) \times 2 = 12$
40	Similarly, URVASI = $(6 + 1) \times 2 = 14$
49.	(a) The word POTATO is coded as '3' as there are three vowels in the word
	The word 'MASK' is coded as '1' as there is one vowel in the word
50.	(b) $RAMON - 12345$
	The code of each letter in the word is written against the place value
	of each letter <i>i.e.</i> , R is coded as '1' and A is coded as '2' and code
	for 'M' is '3' and so on.
	Hence, the code for 'HAMAM' is '92323'.
51.	(d) In the given coded language,
	MISTAKE = 4356127
	A digit is written against the position of each letter in the word <i>i.e.</i> M = 4 L = 2 S = 5 T = 6 A = 1 K = 2 m L = 7
	$W_1 = 4, 1 = 5, S = 5, 1 = 0, A = 1, K = 2, and E = 7.$
	nence, the code for STEAN IS 30/14.

52.	(<i>c</i>) We have,							
	S L	O B		F	A	Т	E	
	4 3	7 9		2	6	8	5	
	Therefore,	L O	F	Т				
53	(a) We have	3 7	2	8				
55.	$\begin{array}{c c} P & L \\ \hline \end{array}$	U S		A	Т	0	M	
	6 2	7 5		4	8	1	3	
	Therefore,	P A	L	M				
	,	6 4	2	3				
54.	(<i>d</i>) We have,	S I	L	K				
		19 9	12	11				
	Similarly,	C O	Т	Т	0	N		
		3 15	20	20	15	14		
55.	(c) A digit cod	e is written ag	gainst e	ach lett	ters of t	he wo	rd 'W	ANT'
	and 'COPE'.			-				-
	We have,	W A N 4 7 1		-	$\frac{C}{2}$	0	P 6	E 3
	Similarly				2	0	0	
	Similarly,	1 8	5	3				
			~ .					
56.	(<i>d</i>) We have,	R I 4 2	C F	1	<u>S</u>	N 3	0 9	W
			/ /	<u> </u>	0	5	/	0
	Similarly,	C O	IN	1				
		7 9 2	2 3	3				
57.	(d) We have, Similarly PIG	CAT = 3 + 1 = 16 + 9 + 7	+20 = = 32	24				
58.	(<i>c</i>) We have, (GOOD = 7 +	15 + 1	5 + 4 =	41.			
	Similarly, BA	D = (2 + 1 + 4)) = 7.					
59.	(c) We have, A Similarly PAS	ACTIVE = 1 SIVE = (16 +	+ 3 + 2 - 1+ 19	20 + 9 - + 19 +	+ 22 + : - 9 + 22	5 = 60	= 91	
60.	(b) N is coded	as $30 = 14 \times$	2+2=	= 30	1 22	- 5)	<i>J</i> 1.	
	And, 'COT' is	coded as 78.						
	$= (3 + 1)^{-1}$	$(16+5+20) \times 2$	$2 + 2 = 20 \times 2$	78 + 2 = 4	41 × 2 -	+2 = 3	84.	
61.	(<i>c</i>) We have, '	GOLF' = 60		_		_		
		=(7+15+2)	12 + 6)	+ (7 +	15 + 1	2+6)	÷2	
	START = 117	$= 40 + (40 \div$	(2) = 6	0.				
	= (19	+20+1+1	8 +20)	+ (19 -	+ 20 + 2	1 + 18	+20)	÷2
	= 78 -	$+(78 \div 2) = 7$	78 + 39	= 117.				
	Similarly, NEST $= (14)$	+5+19+2	(0) + (1)	4 + 5 +	19 + 2	0) ÷ 2		
	= 58 -	$+58 \div 2 = 58$	s + 29 =	87.	17 . 2	<i></i>		
62.	(<i>c</i>) We have,	O = 15 + 5 =	= 20.					
	Similarly, LIT	=(12+9+2)	20) + 5	= 46				
63	Hence, $PIG =$	(16 + 9 + 7)	+ 5 = 3	/.				
	MUSIC	= (13 + 21 +	19 + 9	+ 3) -	5			
		= 65 - 5 = 6	0.	,				

Similarly, TUNE = (20 + 21 + 14 + 5) - 4= 60 - 4 = 56.The code value is the differences of sum of the values of the letters and number of letters in the word. Hence, 'LYRIC' = (12 + 25 + 18 + 9 + 3) - 5= 67 - 5 = 62.64. (d) We have, 23 14 4 21 18 W Α N D C Ū R D +1+1-1 _1 24 0 15 3 20 19 3 Similarly, 5 19 20 E S Α Т ± 1 _1 6 0 20 19 65. (b) We have, UFHC = 21683 (place value of each letter in the English alphabet) Similarly, OFED = 15654

Hence, the word for the code '15236' is 'OBCF'.

66. (*d*) We have,

- STAR = (19 + 20 + 1 + 18) 3 (number of consonants) = 58 - 3 = 55
- Similarly, CUT = (3 + 21 + 20) 2 (number of consonants) = 44 - 2 = 42
- Hence, PEN = (16 + 5 + 14) 2 (number of consonants) = 35 - 2 = 33.
- 67. (d) In the coded language the code for ROADS is '57' which is equal to the sum of place value of all the letters in the English alphabet.
 ROADS = 18 + 15 + 1 + 4 + 19 = 33 + 24 = 57

Similarly, HORN = 8 + 15 + 18 + 14 = 23 + 32 = 55

Hence, BLOW can be written as,

$$= 2 + 12 + 15 + 23 = 29 + 23 = 52.$$

68. (*c*) In the coded language the code for TUNES is '16' which is equal to the sum of the digits of the total sum of place value of all the letters in the English alphabet.

TUNES
$$= 20 + 21 + 14 + 5 + 19 = 41 + 38 = 79 = (7 + 9) = 16$$

Similarly, FREEZE $= 6 + 18 + 5 + 5 + 26 + 5$

$$= 24 + 41 = 65 = (6 + 5) = 11.$$

Hence, CLIMB can be written as,

$$= 3 + 12 + 9 + 13 + 2 = 24 + 15 = 39$$

= $3 + 9 = 12$.

- 69. (c) We have, CAT = $60 = 3 \times 1 \times 20 = 60$. Similarly, DART = $1440 = 4 \times 1 \times 18 \times 20 = 1440$. Hence, BART = $2 \times 1 \times 18 \times 20 = 720$.
- 70. (a) We have, '1357' = 2468.
 '1' is added in all the digits of '1357' to get the code '2468'. Similarly, '2468' is coded as '3579'.
- 71. (d) We have,

FRUIT,
$$F = 6$$
, $R = 18$, $U = 21$, $I = 9$, $T = 20$
 $F = 0 + 6 = 6 - 1 = 5$
 $R = 18 = 1 + 8 = 9 - 1 = 8$
 $U = 21 = 2 + 1 = 3 - 1 = 2$
 $I = 0 + 9 = 9 - 1 = 8$

T = 20 = 2 + 0 = 2 - 1 = 1Similarly, GRAPES, G = 7, R = 18, A = 1, P = 16, E = 5, S = 19 G = 0 + 7 = 7 - 1 = 6R = 1 + 8 = 9 - 1 = 8A = 0 + 1 = 1 - 1 = 0P = 1 + 6 = 7 - 1 = 6E = 0 + 5 = 5 - 1 = 4S = 1 + 9 = 10 = 1 + 0 = 1 - 1 = 0.Hence, the code for word 'GRAPES' is '680640'. 72. (b) We have, М I S E Similarly, А Κ Е D Ν 4 2 8 1 3 Therefore, N Т 1 M 8 Hence, 'INTIMATE' can be written as '78579452'. 73. (b) We have, M Ε 9 Similarly, А N D 3 4 Therefore, S D 6

74. (b) We have, DENT = (4+5+14+20)+8=43+8=51Similarly, LOAD = (12+15+1+4)+8=32+8=40Hence, 'COST' will be written as,

$$= (3 + 15 + 19 + 20) + 8 = 57 + 8 = 65.$$

75. (*d*)

Letter	В	L	0	С	K
Positional Value	2	12	15	3	11
Code	2 + 1 = 3	12 + 1 = 13	15 + 1 = 16	3 + 1 = 4	11 + 1 = 12

Similarly,

Letter	S	U	Р	R	Е	М	Е
Positional Value	19	21	16	18	5	13	5
Code	19 + 1	21 + 1	16 + 1	18 + 1	5 + 1	13 + 1	5 + 1
	= 20	= 22	= 17	= 19	= 6	= 14	= 6

Hence, the correct answer is 202217196146.

76. (*b*) The logic is: Positional values of letters in reverse alphabetical series.

FIXED =
$$[21 + 18 + 3 + 22 + 23] - 1 = 87 - 1 = 86.$$

COMPANY = $[24 + 12 + 14 + 11 + 26 + 13 + 2] - 1$
= $102 - 1 = 101.$

Similarly,

IN

TERIM =
$$[18 + 13 + 7 + 22 + 9 + 18 + 14] - 1$$

= $101 - 1 = 100$.

77. (a) The logic is: For Consonants, positional values of letters in reverse alphabetical series.

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REASONING FOR COMPETITIONS > Coding-Decoding \swarrow 1-20

For Vow	els: A	(1),	E (2), I (3), O (4), U	(5)
Word	S	Е	Ι	Ζ	U	R	Е
Code	8	2	3	1	5	9	2
Word	Н	A	R	M	0	N	Y
Code	19	1	9	14	4	13	2
Similarly	,						
Word	Р	R	0	D	U	C	E
Code	11	9	4	23	5	24	2

78. (*a*) The logic is: Sum of positional values of letters of the word in reverse alphabetical order.

S + K + I + L + L = 8 + 16 + 18 + 15 + 15 = 72

Similarly,

C + A + R + E + E + R = 24 + 26 + 9 + 22 + 22 + 9 = 112.

79. (a) The logic is: For letters with positional values < 9; the code is positional values in reverse alphabetical series.

For letters with positional values > 9, the code is sum of digits of positional value of letter in alphabetical series.

Word	Е	Q	U	A	. 1	Ĺ	Ι	T	Y	
Positional Values	5	17	21	1	1	2	9	20	25	
Code	22	8	3	26	5	3	18	2	7	
Word	C	0	N	1	F		I	R	Μ	
Positional Values	3	15	14	4	6		9	18	13	
Code	24	6	5	;	21	1	18	9	4	

Similarly,

Word	R	Е	S	0	U	R	С	Е
Positional Values	18	5	19	15	21	18	3	5
Code	9	22	10	6	3	9	24	22

80. (*a*)

Word	Т	W	Е	N	Т	Y				
Code	8	6	3	9	8	5				
Word	E	L	Е	V	Е	N				
Code 3 2 3 0 3 9										
From the a	above co	odes, we o	can find							

Word	Т	W	Е	L	V	Е
Code	8	6	3	2	0	3

Hence, TWELVE is coded as 863203.

81. (c) The logic is: The word is coded as the positional values of each letter.

 $DOG \rightarrow D = 4, O = 15, G = 7 \rightarrow 4157$ Similarly, MAT \rightarrow M = 13, A = 1, T = 20 \rightarrow 13120

82. (*a*)

Word	F		А		К		Е	
Positional Value	6		1		11		5	
Code	5	(6-1)	2 (1 -	+1)	10 (11 – 1)		6 (5 + 1)	
Word		М			А		D	
Positional Value	13			1		4		
Code		12 (13	- 1)	2 ((1 + 1)	5 (4	4+1)	

Similarly,

Word	D	Е	Е	R
Positional Value	4	5	5	18
Code	3 (4 – 1)	6 (5 + 1)	4 (5 – 1)	19 (18 + 1)
Hence, DEER will	be coded as	s 36419.		

83. (b) The logic is: (C + A + B) × 2 + 1 = (3 + 1 + 2) × 2 + 1 = 13 (F + E + E + D) × 2 + 1 = (6 + 5 + 5 + 4) × 2 + 1 = 41 Similarly, (J + A + D + E) × 2 + 1 = (10 + 1 + 4 + 5) × 2 + 1 = 41

84. (c) The logic is: Positional value of letter ×
$$A = 1 \times 2 = 2$$

 $A = 1 \land 2 = 2$ $B = 2 \times 2 = 4$

Similarly, EARTH = 102364016

85. (a) Positional value of Y = 25; code = $25 \times 2 = 50$ SEA = $(19 + 5 + 1) \times 2 = 50$

Similarly,
$$YACHT = (25 + 1 + 3 + 8 + 20) \times 2 = 114$$
.

86. (a)

Word	R	0	S	E]
Code	6	8	2	1]
Word	C	Н	A	Ι	R
Code	7	3	4	5	6
XX7I		D	Г	C	тт
word	P	к	E	U	Н
Code	9	6	1	7	3

From the above codes, we can find

Word	S	Е	А	R	С	Η
Code	2	1	4	6	7	3

Hence, the correct answer is 214673.

87. (c)

Number	1	5	7	8	9
Code	Х	Т	Ζ	A	L
Number	2	3	4	6	
Code	Ν	Р	S	U	

From the above given codes, we can find

Number	2	3	5	4	9
Code	Ν	Р	Т	S	L

Hence, NPTSL is the correct answer.

88. (*c*) Each letter of the word is replaced by its positional value in the English alphabetical series.

A T U L ↓↓↓↓	G↓		I↓	T↓	A ↓
1 - 20 - 21 - 22	7	-	9 -	20	- 1

89. (b) The words are coded according to the following pattern: Sum of the place values of the opposite letters of the word × Total number of vowels in the word = code

V I R T U E →
$$5(E) + 18(R) + 9(I) + 7(G) + 6(F) + 22(V)$$

= $67 \times 3 = 201$

Similarly,

$$PROFANE \rightarrow 11(K) + 9(I) + 12(L) + 21(U) + 26(Z) + 13(M) + 22(V)$$

= 114 × 3 = 342

90. (*b*) The code represents the cube of the total number of letters in the word.

For example,

CROW $\rightarrow 64 = 4^3$ (There are four letters in the word CROW) Similarly, PARROT $\rightarrow 6^3 = 216$

91. (c) The first and the last letters are replaced by the number which represents the positional value of its opposite letter. Second and

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third letters are replaced by the number representing the positional value of that letter.



92. (c) For each word total number of letters in the word is added to the sum of the positions of the opposite of each letter of the word, to obtain the code:

For example:

FRENCH
$$\rightarrow 21(U) + 9(I) + 22(V) + 13(M) + 24(X) + 19(S)$$

= 108 $\rightarrow 108 + 6 = 114$

Similarly,

 $COURSE \rightarrow 24(X) + 12(L) + 6(F) + 9(I) + 8(H) + 22(V)$ $= 81 \rightarrow 81 + 6 \rightarrow 87$



94. (c) The words are coded as: Sum of the positional values of all the letters in the word \times Total number of letters in the word.

> Ν D and P $\begin{array}{c}
> \downarrow \\
> 11+5+14+4=42
> \end{array}$ $42 \times 4 = 168$ $79 \times 5 = 395$

95. (d) Each vowel is replaced by its third next letter of the English alphabetical series. Each consonant is replaced by its fourth next letter of the English alphabetical series.



96. (c) All the letters at the odd positions are replaced by the number representing their position in the English alphabetical series. All the letters at the even positions are replaced by the number representing the position of their opposite letters.





98. (c) The code is: Sum of the positional values of all the letters of the word - Total number of letters in the word. We have

C R O W N D E P E N D

$$4 + 4 + 4 = 73$$

 $3 + 8 + 15 + 23 + 14 = 73$
 $4 + 5 + 16 + 5 + 14 + 4 = 48$
 $73 - 5 = 68$
Similarly, I M A G E R Y
 $9 + 13 + 1 + 7 + 5 + 18 + 25 = 78$
 $78 - 7 = 71$
99. (a) Q R C Y N P D
 $4 + 4 + 4 + 48$
 $73 - 5 = 68$
 $78 - 7 = 71$
99. (a) Q R C Y N P D
 $4 + 4 + 4 + 48$
 $78 - 7 = 71$
100. (d) D E X S A J
 $4 + 4 + 4 + 48$
 $73 - 5 = 68$
 $78 - 7 = 71$

101. (c) From the directions it is clear that all odd numbered alphabets are coded as 1 and all even numbered alphabets are coded as 2.

Т	U	R	В	Α	N
¥	¥	¥	¥	¥	↓ ↓
20	21	18	2	1	14
¥	¥	¥	¥	¥	↓
2	1	2	2	1	2

102. (b) The meaningful word formed from the given letters is

1 6 С V

0 V

H

2

S

¥ 3

0

U

104. (c) The meaningful word formed from the given letter is C

Shortcut Method: Decode directly as below:

3

1

D

S

(<i>a</i>)	1	2	6	4	5	3	7	8
	↓	↓	↓	↓	↓	↓	↓	↓
	S	O	V	I	E	R	D	C
(<i>b</i>)	3	5	8	4	6	2	1	7
	↓	↓	↓	↓	↓	↓	↓	↓
	R	E	C	I	V	0	S	D

5

Т

D T





^{116. (}b) KNOWLEDGE will be coded as HAMBURGER.

REASONING FOR COMPETITIONS	☆ Coding-Decoding
124. (d) B L A C K S M I T H $\downarrow_{+1} \downarrow_{+2} \downarrow_{+1} \downarrow_{+2}$ C N B E L U N K U J	132. (b) We have, Similarly, H O S P I T A L I 2 3 4 5 6 7 8
Similarly, $ \begin{array}{ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
125. (b) R A T I O N $\downarrow -3$ $\downarrow -3$ O X Q F L K Similarly,	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	134. (a) F A S H I O N \rightarrow FOIHSAN
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$135. (c) \xrightarrow{\text{TEM}} PLE \xrightarrow{\text{PLE}} METELP$
$\begin{array}{cccc} C & H & A & I & R \\ \downarrow -2 & \downarrow +2 & \downarrow -2 & \downarrow +2 & \downarrow -2 \\ A & J & Y & K & P \end{array}$	Similarly, FAIT HFUL TIAFLUFH [Rule: Divide the word into two equal halves and reverse the arrangements of letters in the two halves.]
127. (a) <u>A P</u> <u>P R</u> <u>O A</u> <u>C H</u> \rightarrow CHOAPRAP Similarly, <u>R E</u> <u>S T</u> <u>R I</u> <u>C T</u> \rightarrow CTRISTRE	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
128. (a) A M O U N T \downarrow^{+1} \downarrow^{+1} \downarrow^{+1} \downarrow^{-1} \downarrow^{-1} \downarrow^{-1} \downarrow^{-1} B N P T M S Similarly, A R O U N D \downarrow^{+1} \downarrow^{+1} \downarrow^{+1} \downarrow^{-1} \downarrow^{-1} \downarrow^{-1}	137. (b) Develop ment Tnemdevelop Similarly,
B S P T M C 129. (c) F R I E N D \downarrow^{+2} \downarrow^{+3} \downarrow^{+4} \downarrow^{+5} \downarrow^{+6} \downarrow^{+7} H U M J T K Similarly, C A N D L E \downarrow^{+2} \downarrow^{+3} \downarrow^{+4} \downarrow^{+5} \downarrow^{+6} \downarrow^{+7}	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
130. (a) $\begin{bmatrix} L & L & K & I & K & L \\ & H & E & N & & \\ & I & I & I & I & I & \\ & I & I &$	$\begin{vmatrix} -3 & -3 & -3 & -3 & -3 & -3 & -3 \\ P & Q & R & A & B & K & Q \\ 139. (a) & A & R & A & T & H & Y \\ \downarrow^{+1} & \downarrow^{+1} & \downarrow^{+1} & \downarrow^{+1} & \downarrow^{+1} & \downarrow^{+1} \\ R & S & P & U & U & Z \\ \end{vmatrix}$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{bmatrix} \mathbf{B} & \mathbf{S} & \mathbf{B} & \mathbf{U} & \mathbf{I} & \mathbf{Z} \\ \text{Therefore,} & \mathbf{S} & \mathbf{Y} & \mathbf{S} & \mathbf{T} & \mathbf{E} & \mathbf{M} \\ & & \downarrow_{+1} & \downarrow_{+1} & \downarrow_{+1} & \downarrow_{+1} & \downarrow_{+1} & \downarrow_{+1} \\ & & \mathbf{T} & \mathbf{Z} & \mathbf{T} & \mathbf{U} & \mathbf{F} & \mathbf{N} \end{bmatrix}$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

REASONING FOR COMPETITIONS Similarly, C В R -3 +2 +2-3 E K Y 141. (c) The word is reversed to get the code EARTHQUAKE → EKAUQHTRAE Similarly, ELECTORATE -➤ ETAROTCELE 142. (d) В U D D +2+2+2 +2+2+2+2D \cap Similarly, Η R N +2+2 +2+2 +2+2 +2 +2Κ U V K С Ρ 143. (c) 0 Ν Т Μ Μ Е U М ➤ EMOMNTUM Therefore, Е Т С → NGAMETIC G Ν Ι М А [Rule: The order of first four letters is reversed.] 144. (d) D Е Μ В E → EDECBMRE Therefore, F Е R B U → EFRBAUYR 145. (c) G D N F +1Η D \cap Similarly. G +1+1+1-1 -1 0 Η U M 146. (*d*) → RGAINHS G Η Α N Therefore, → NGEOISU G E. 0 S U 147. (a) M +2 +5+6Ν Κ G M 0 N Therefore, +2 +5 G \cap



[**Rule:** Divide the word into two equal halves and reverse the arrangements of letters in the two halves]

152. (c) TOLACC								
F I F	Ţ	Y	Ç	A	R	Ţ	A	R
	★	♦ V	∳ ₽	*	t.	Ť	ð	Ľ
Therefore T	1	T D	т	Б	E	-	0	-
	A ↓	K	↓ ↓	Г ↓	Г ↓			
Ť	ò	Ľ	Å	Ċ	Ċ			

153. (*d*) In the coded language, FRANK is written as 'UIZMP' *i.e.*, all the letters of the word is replaced by their opposite letters in the English alphabet.

Hence, the word 'CLOSE' is written as 'XOLHV'.

154. (*c*) In the coded language, TOWN is written as 'GLDM' *i.e.*, all the letters of the word is replaced by their opposite letters in the English alphabet.

Hence, the word 'SPARE' is written as 'HKZIV'.

155. (*a*) In the coded language, 'TASK' is written as 'WEXQ' *i.e.*, all the letters of the word is replaced by some other letter following a pattern shown below.

Based on this pattern the code for 'LORD'.

Hence, the word 'LORD' is written as 'OSWJ'.

156. (*c*) In the coded language, 'LOCK' is written as 'NQEM' *i.e.*, all the letters of the word is replaced by some other letter following a pattern shown below.



- Hence, the word 'RASH' is written as 'TCUJ'.
- **157.** (*c*) In the coded language, 'WISE' is written as 'XKVI' *i.e.*, all the letters of the word are replaced by some other letter following a pattern shown below.

Based on this pattern the code for 'TALK'.

Hence, the word 'TALK' is written as 'UCOO'.

158. (*d*) In the coded language, 'LATE' is written as 'GWQC' *i.e.*, all the letters of the word are replaced by some other letter following a pattern shown below.

Based on this pattern the code for 'POUR'.

Hence, the word 'POUR' is written as 'KKRP'.



As all the letters are replaced by their opposite letters in the English alphabets. Therefore,



162. (*b*) The 1st and 2nd letter of the word 'MATTER' interchanges their position within the word similarly 3rd and 4th letter and 5th and the 6th letter.

Similarly, the word 'LENGTH' can be written as 'ELGNHT'.

163. (*b*) The 1st and 2nd letter of the word 'METHOD' interchanges their position within the word similarly 3rd and 4th letter and 5th and the 6th letter.

Similarly, the word 'PRACTICE' can be written as 'RPCAITEC'.

164. (*d*) All the letters of the word 'MANGO' are written in the reverse order from the right 'OGNAM'.

Similarly, the word 'APPLE' is written as 'ELPPA'.

165. (*b*) The 1st and 2nd letter of the word 'CHANTING' interchanges their position within the word similarly 3rd and 4th letter and 5th and 6th letter and so on.

Similarly, the word 'PINCHING' can be written as 'IPCNIHGN'.



Scoding-Decoding ✓ 1-26 = **REASONING FOR COMPETITIONS**





After reversing the codes we get 'OCINCOC'.

169. (a) All the letters of the word 'SMART' is written in ascending order to get the code 'AMRST'.

Similarly, the word 'DESIGN' can be written as 'DEGINS'.



171. (d) The opposite letters of the word 'APRICOT' is written from right to left.



Similarly, the word Orange can be written as 'VTMZIL'.



172. (a) The logic is: Subtract 3 from consonants and add 8, 10, 12 and so on to the vowels.



Hence, the code is 'OOLXSJ'.

174. (d) The logic is: Add 1 to the consonants and 4 and 6 to vowels alternatively.



Hence, uhoen is the correct answer.

After reversing the code from right to left, we get IRMVEQ.



Hence, the code for 'BEAUTY' is 'CXYEIF'.

176. (c) In the given coded language, the word 'CHART' is written from right to left to obtain the code 'TRACH'. Similarly, 'CLOSE' is written as 'ESOCL'. Hence, 'WORLD' will be written as 'DLRWO'.







Hence, the correct option is 'ZWFOG'.

- 187. (c) All the letters of the word 'ADVENTURE' is written from right to left to get the code 'ERUTNEVDA'.Similarly, All the letters of the word 'GREEN' is written from right to left to get the code 'NEERG'.









REASONING FOR COMPETITIONS $\$ Coding-Decoding $\$ 1-29



214. (<i>d</i>)	Letters	F	А	М	Ι	L	Y
	Codes	Q	Х	В	J	S	D

From the above table, we can say that FILMY will be written as QJSBD.





216. (*b*) In each word, the first and the last letter is replaced by its second next letter of the English alphabetical series. The middle letter is replaced by a set of two letters, i.e. its second preceding letter and its second next letter.



Η

 $\begin{array}{c} +1 & +1 & +1 & +1 \\ S & B & N & O \end{array}$ 218. (*a*) We have,

Similarly,



219. (*d*) By observing the position of the common letter (H) and the common code (\in), we can say that each letter coded as a unique symbol.

Letters	R	0	М	Н	Е	Ι	G	Т
Codes	α	×	a	€	÷	β	\odot	*

From the above table, we can say that, TIGER will be written as: $*\beta \odot \div \alpha$





ONS 🖔 CODING-DECODING 🖑 🛛 1-30

Now, colour of grass is green which is coded as 'orange'. So, the colour of grass is orange.

234. (*a*)

Words	pen	paper	laptop	eraser
Codes	paper	laptop	eraser	bottle

Now, we write on paper which is coded as laptop. So, the correct answer is laptop.

235. (b)

Letters	А	С	F	0	Е	В
Codes	С	F	0	Е	В	G

So, COFFEE will be written as FEOOBB.

236. (*c*)

Words	Cat	Dog	Goat	Horse	Lion
Codes	Dog	Goat	Horse	Lion	Hen

Now, Lion is not a pet animal and Lion is coded as Hen. So, Hen is the correct answer.

237. (*c*)

Words	air	green	blue	sky	yellow	water
Codes	green	blue	sky	yellow	water	pink

Now, colour of clear sky is blue which is coded as 'sky'. So, the colour of clear sky is 'sky'.

238. (b)

Words	orange	butter	soap	ink	honey
Codes	butter	soap	ink	honey	orange

As for washing clothes 'soap' is used and in the coded language 'soap' is called 'ink'.

Hence, 'ink' is used for washing clothes.

239. (*a*) According to question 'Red' means 'white' and colour of milk is white but in question white represents Red.

240. (*c*)

c)	BRING	WATER	J	A I	PA
	WATER	IS COLD	TE	JA	BO

Since WATER is coded as JA; BRING is coded as PA.

241. (*a*)

Codes	Phrases		
Sue Re Nik	she is brave		
Pi Sor Re Nik	she is always smiling		
Sor Re Zhi	is always cheerful		

Step 1: 'Re' is common in all three codes and 'is' is common in all three phrases. Re \equiv is.

Step 2: 'Nik' is common in first two codes and 'she' is common in first two phrases. Nik \equiv she.

Step 3: 'Sor' is common in last two codes and 'always' is common in last two phrases. Sor \equiv always.

Step 4: From second row, we have: $Pi \equiv smiling$.

242. (a)

Row	Code	Phrases
Ι	PIC VIC NIC	winter is cold
II	TO NIC RE	summer is hot
III	RE TOO PA	nights are (hot)

Step 1: From I and III : NIC \equiv is

Step 2: From II and III : $RE \equiv hot$

Step 3: TO \equiv Summer (from II).

- · - · · · ·				,			
243. (<i>a</i>)	Row		Codes			Phrases	
	Ι	2	5	3	books	are (old
	II	5	4	6	man	is 🤇	old
	III	3	7	8	buy	good	books

Step 1: From I and III : $3 \equiv$ books

Step 2: From I and II : $5 \equiv \text{old}$

Step 3: $2 \equiv \text{are (from Row I)}$

244. (<i>a</i>)	Row		Code			Phrase	s
	Ι	4	8	1	sky	is	blue
	II	2	4	6	sea	is	deep
	III	6	9	8	sea	looks	blue

Step 1: From I and III : $8 \equiv$ blue.

245. (b)	Row	Code		Phrases
	Ι	1 2	3	(hot) filtered coffee
	II	3 5	6	very (hot) day
	III	5 8	9	day and night

Step 1: From II and III : $5 \equiv day$

Step 2: From I and II : $3 \equiv hot$.

Step 3: $6 \equiv$ very (from Row II)

246. (*c*)

Codes	Phrases
ski rps tri	nice sunday morning
teh sti rps	every tuesday morning
ski) ptr qlm	nice market place

Step 1: 'ski' is common in first and last code and 'nice' is common in first and last phrase. ski = nice.

Step 2: 'rps' is common in first two codes and 'morning' is common in first two phrases. rps = morning.

Step 3: From first row, we have: tri = Sunday.

247. (<i>d</i>)		Cod	les			Phr	ases	
	ad	mi	(ja)	no	easy	path	to	win
	ku (ja)	ig	ad	the	path	to	heavn
	be	ku	ZO	mi	win	of	the	tomorrow
	be	li	ya	ja	to	tell	of	night

Step 1: 'ja' is common in first two and last code and 'to' is common in first two and last phrases. ja = to

Step 2: 'be' is common in last two codes and 'of' is common in last two phrases. be = of.

Step 3: From last two rows, we have: li ya = tell night.

Therefore, definite code of 'tell' cannot be determined.

248. (b)	Codes	Phrases
	ki (la) fa so	colors of the sky
	ro ki	rainbow colors
	(la) (pe) jo	(sky) high (rocket)
	(pe) so ne	the crocket world

Step 1: 'ki' is common in first two codes and 'colors' is common in first two phrases. ki = colors

Step 2: 'la' is common in first and third codes and 'sky' is common in first and third phrases. la = sky

Step 3: 'pe' is common in last two codes and 'rocket' is common in last two phrases. pe = rocket.

Step 4: From first and third row, we have: colors sky high = ki la jo

249. (*a*)

Row	Codes	Phrases		
Ι	aa be (rs)	go went gone		
II	ub (rs) wa	you go home		
III	wa de	you want		
IV	lo aa	went do		

Step 1: From II and III: wa = you.

REASONING FOR COMPETITIONS > Coding-Decoding \swarrow 1-32

250. (d)

Row	Codes	Phrases
Ι	la pa zi ta	gray clothes are fancy
II	pa zi la sa	new clothes are gray
III	na hi ga pa	design are very nice
IV	zi mi jo ga	gray color and design

Step 1: From I and IV: zi = gray

Step 2: From III and IV: ga = design.

Step 3: From IV: mi jo = color and.

Therefore, the code of color = either mi or jo.

251. (b)

Words	Codes
red colour chalk	256
green colour flower	589
white colour chalk	254

From statement I and III, The code for the word 'white' is '4'.

252. (c) On solving the coding decoding the codes of the word,

Word	Codes
the	ga/re
of	ga/re
time	dha
dead	ma
end	ра
island	sa
it/is	na/se

Hence, the code for the words 'Time of the Jackal' is 're ga sur dha'.

253. (*d*) Based on the given information we cannot find the code for 'Jackal'.

254. (b) In the coded language,

"black tall man" = 567	(<i>i</i>)
"curly black hair" = 859	(<i>ii</i>)
"fat tall man" = 167	(iii)



Words	Codes
tall	6/7
man	7/6
black	5
fat	1
curly	8/9
hair	9/8

Hence, '1' stands for 'fat'.

- **255.** (d) 'goolo yearn' = 'blue sky'
 - 'silko spadi' = 'bicycle race' ...(*ii*) and 'goolo silko' = 'blue bicycle' ...(*iii*)

Hence solving all the equation together,

Words	Codes
bicycle	silko
blue	goolo
sky	yearn
race	spadi

Hence, the code for 'race car' is 'spadi volo'.

256. (a) In the coded language,

cotton makes thread $= 8 \ 1 \ 7$	(i)
thread makes $cloth = 8 2 7$	(<i>ii</i>)
soft cotton $cloth = 2 \ 1 \ 3$	(iii)

Using (i), (ii) and (iii) we get,

Words	Codes
cotton	1
cloth	2
soft	3
thread/makes	8/7

Hence, the code for soft is '3'.

257. (<i>d</i>)	'ice is cold' $= 319$	(<i>i</i>)
	'winter is cold' = 431	(<i>ii</i>)

		1	2	;	÷
		L	ı	ı	l

...(i)

On solving (i), (ii) and (iii) together

'ice in winter' = 249

Words	Codes
ice	9
winter	4
is/cold	3/1
in	2

Hence, the code for 'in' is '2'.

258. (d) In the coded language,

steel is strong = 972	(<i>i</i>)
iron is strong = 298	(<i>ii</i>)

(i	ii)
(1	u)

iron and steel = 387 Solving (*i*), (*ii*) and (*iii*) together, we get

Word	Codes
is	9/2
steel	7
strong	2/9
iron	8
and	3

Hence, the code of the word 'and' is '3'.

259. (b) We have,

'water is drink' = 639

...(i)

Juic	the is drink' $= 316$		(<i>ii</i>)
'water or juice' = 219 (<i>iii</i>)			(<i>iii</i>)
On solving a	Word	Codor	
	water	Q	
	iuice		
	juice is/drink	6/3	
	or	2	
Hanca the co	de for 'or' is '2'	2	
260. (<i>b</i>) We have	, , , , , , , , , , , , , , , , , , ,		
'gre	en and tasty' = 'bir	le nac'	(<i>i</i>)
'ton 'foo	nato is green' = 'pic d is tasty' = 'coc bi	nac hor'	(<i>ii</i>)
Solving (i), (i	<i>i</i>) and (<i>iii</i>), we get,	1 1101	(<i>uu</i>)
	Words	Codes	
	tomato	pic	
	is	hor	
	green	nac	
	food	coc	
	tasty	bir	
	and	le	
Hence the co	de for 'tomato is ta	sty' is 'nic hor hir'	
261. (<i>d</i>) We have	,	sty is pre-nor on .	
'hot	filtered coffee' = 12	23	(<i>i</i>)
`ver 'day	y hot day $= 356$		(11)
Solving (i), (ii) and (iii) $\dots \dots \dots$			
Solving (<i>i</i>), (<i>i</i>	<i>i</i>) and (<i>iii</i>)		(111)
Solving (i), (i	<i>i</i>) and (<i>iii</i>) Word	Codes	(111)
Solving (i), (i	<i>i</i>) and (<i>iii</i>) Word hot	Codes 3	(111)
Solving (i), (i	<i>i</i>) and (<i>iii</i>) Word hot day	Codes 3 5	(111)
Solving (i), (i	i) and (iii) Word hot day very	Codes 3 5 6	(111)
Solving (i), (i	i) and (iii) Word hot day very and/night	Codes 3 5 6 8 or 9	(111)
Solving (i), (i	i) and (iii) Word hot day very and/night filtered	Codes 3 5 6 8 or 9 1 or 2	(111)
Solving (i), (i	i) and (iii) Word hot day very and/night filtered coffee	Codes 3 5 6 8 or 9 1 or 2 2 or 1	(111)
Solving (<i>i</i>), (<i>i</i> Hence, code 1	i) and (iii) Word hot day very and/night filtered coffee for word 'very' is 6.	Codes 3 5 6 8 or 9 1 or 2 2 or 1	(111)
Solving (<i>i</i>), (<i>i</i> Hence, code f 262. (<i>d</i>) 'spe	i) and (iii) Word hot day very and/night filtered coffee for word 'very' is 6. ak the truth' = 'ken	Codes3568 or 91 or 22 or 1	(<i>l</i> 1)
Solving (<i>i</i>), (<i>i</i> Hence, code f 262. (<i>d</i>) 'spe 'alw	i) and (iii) Word hot day very and/night filtered coffee for word 'very' is 6. ak the truth' = 'ken rays seek knowledg wyledge is truth' = '	Codes3568 or 91 or 22 or 1 $e' = 'bis tim nak'$ tim tems sik'	(<i>ii</i>) (<i>ii</i>) (<i>ii</i>)
Solving (i), (i Hence, code f 262. (d) 'spe 'alw 'kno 'nev	i) and (iii) Word hot day very and/night filtered coffee for word 'very' is 6. ak the truth' = 'ken rays seek knowledg owledge is truth' = '	Codes3568 or 91 or 22 or 1np lamp tems'e' = 'bis tim nak'tim tems sik''lik bis zap'	(<i>ii</i>) (<i>ii</i>) (<i>ii</i>) (<i>iii</i>)
Solving (i), (i Hence, code f 262. (d) 'spe 'alw 'kno Solving (i), (i	i) and (iii) Word hot day very and/night filtered coffee for word 'very' is 6. ak the truth' = 'ken rays seek knowledg owledge is truth' = ' rer seek violence' = i), (iii) and (iv) we	Codes3568 or 91 or 22 or 1np lamp tems'e' = 'bis tim nak'tim tems sik''lik bis zap'get,	(<i>iii</i>) (<i>ii</i>) (<i>iii</i>) (<i>iv</i>)
Solving (<i>i</i>), (<i>i</i> Hence, code f 262. (<i>d</i>) 'spe 'alw 'kno 'nev Solving (<i>i</i>), (<i>i</i>	i) and (iii) Word hot day very and/night filtered coffee for word 'very' is 6. ak the truth' = 'ken vays seek knowledg owledge is truth' = ' ver seek violence' = i), (iii) and (iv) we Words	Codes3568 or 91 or 22 or 1np lamp tems'e' = 'bis tim nak'tim tems sik''lik bis zap'get,	(<i>ii</i>) (<i>ii</i>) (<i>ii</i>) (<i>iv</i>)
Hence, code f 262. (d) 'spe 'alw 'kno Solving (i), (i	i) and (iii) Word hot day very and/night filtered coffee for word 'very' is 6. ak the truth' = 'ken 'ays seek knowledg bwledge is truth' = ' ver seek violence' = i), (iii) and (iv) we Speak	Codes3568 or 91 or 22 or 1and the probability of the probabi	(<i>iii</i>) (<i>iii</i>) (<i>iii</i>) (<i>iv</i>)
Hence, code f 262. (d) 'spe 'alw 'kno Solving (i), (i	i) and (iii) Word hot day very and/night filtered coffee for word 'very' is 6. ak the truth' = 'ken rays seek knowledg owledge is truth' = ' rer seek violence' = i), (iii) and (iv) we Speak the	Codes3568 or 91 or 22 or 1np lamp tems'e' = 'bis tim nak'tim tems sik''lik bis zap'get,Codeskemp/lampkemp/lamp	(<i>iii</i>) (<i>ii</i>) (<i>iii</i>) (<i>iv</i>)
Solving (i), (i Hence, code f 262. (d) 'spe 'alw 'kno 'nev Solving (i), (i	and might $= 389$ i) and (iii) Word hot day very and/night filtered coffee for word 'very' is 6. ak the truth' = 'ken 'ays seek knowledg bwledge is truth' = ' ver seek violence' = i), (iii) and (iv) we Words speak the truth	Codes3568 or 91 or 22 or 1ap lamp tems'e' = 'bis tim nak'tim tems sik''lik bis zap'get,kemp/lamptems	(<i>iii</i>) (<i>iii</i>) (<i>iv</i>)
Hence, code f 262. (d) 'spe 'alw 'kno 'nev Solving (i), (i	i) and (iii) Word hot day very and/night filtered coffee for word 'very' is 6. ak the truth' = 'ken vays seek knowledg owledge is truth' = ' ver seek violence' = i), (iii) and (iv) we words speak the truth always	Codes3568 or 91 or 22 or 1np lamp tems'e' = 'bis tim nak'tim tems sik''lik bis zap'get,Codeskemp/lampkemp/lamptemsnak	(<i>iii</i>) (<i>ii</i>) (<i>iii</i>) (<i>iv</i>)
Hence, code f 262. (d) 'spe 'alw 'kno Solving (i), (i	i) and (iii) Word hot day very and/night filtered coffee for word 'very' is 6. ak the truth' = 'ken vays seek knowledg owledge is truth' = ' rer seek violence' = i), (iii) and (iv) we Words speak the truth always seek	Codes3568 or 91 or 22 or 1and the plamp tems'e' = 'bis tim nak'tim tems sik''lik bis zap'get,Codeskemp/lampkemp/lamptemsnakbis	(<i>iii</i>) (<i>iii</i>) (<i>iv</i>)
Hence, code f 262. (d) 'spe 'alw 'nev Solving (i), (i	i) and (iii) Word hot day very and/night filtered coffee for word 'very' is 6. ak the truth' = 'ken rays seek knowledg owledge is truth' = ' rer seek violence' = i), (iii) and (iv) we Words speak the truth always seek violence	Codes 3 5 6 8 or 9 1 or 2 2 or 1 or p lamp tems' e' = 'bis tim nak' tim tems sik' 'lik bis zap' get, Codes kemp/lamp tems nak bis lik/zap	(<i>iii</i>) (<i>iii</i>) (<i>iv</i>)
Hence, code f 262. (d) 'spe 'alw 'kno 'nev Solving (i), (i	i) and (iii) Word hot day very and/night filtered coffee for word 'very' is 6. ak the truth' = 'ken vays seek knowledg owledge is truth' = ' ver seek violence' = i), (iii) and (iv) we Words speak the truth always seek violence knowledge	Codes 3 5 6 8 or 9 1 or 2 2 or 1 np lamp tems' e' = 'bis tim nak' tim tems sik' 'lik bis zap' get, Codes kemp/lamp tems nak bis lik/zap tim	(<i>iii</i>) (<i>iii</i>) (<i>iii</i>) (<i>iv</i>)
Hence, code f 262. (d) 'spe 'alw 'kno Solving (i), (i	i) and (iii) Word hot day very and/night filtered coffee for word 'very' is 6. ak the truth' = 'ken rays seek knowledg owledge is truth' = ' ver seek violence' = i), (iii) and (iv) we Words speak the truth always seek violence knowledge is	Codes3568 or 91 or 22 or 1ap lamp tems'e' = 'bis tim nak'tim tems sik''lik bis zap'get,kemp/lampkemp/lamptemsnakbislik/zaptimsik	(<i>iii</i>) (<i>iii</i>) (<i>iv</i>)

Reasoning for Competitions $\$ Coding-Decoding eq 1-33

Henc	e, the code for 'always' is 'nak'.	
263. (c)	'no more food' = 'ta ka da'	(<i>i</i>)
	'more than that' = 'sa pa ka'	(<i>ii</i>)
	Solving (i) and (ii) we get,	

Words	Codes
more	ka
no/food	ta/da
than/that	sa/pa

Hence, the code for 'that' is 'sa or pa'.

264. (d) 'softer than flower' = 'nitco sco tingo' ...(*i*) 'sweeter flower fragrance' = 'tingo rho mst' ...(*ii*) 'sweeter than smile' = 'mst sco tmp' ...(*iii*)

Solving (i), (ii) and (iii) we get,

Words	Codes
softer	nitco
than	sco
flower	tingo
fragrance	rho
sweeter	mst
smile	tmp

Hence, the code for 'softer' stands for 'nitco'. 265. (b) We have,

(-))	
	'you are there' = 'ter der jer'	(<i>i</i>)
	'we stay here' = 'yer mer ner'	(<i>ii</i>)
	'we are late' = 'ser ner der'	(<i>iii</i>)
	'I stay there' = 'yer fer jer'	(<i>iv</i>)
Solving	(<i>i</i>), (<i>ii</i>), (<i>iii</i>) and (<i>iv</i>)	

Words Codes VOII

you	ter
are	der
there	jer
we	ner
stay	yer
here	mer
late	ser

ton

Hence, the code for 'you stay late' stands for 'ter yer ser'.

266. (a) We have,

I like chocolate' = 958	(<i>i</i>)
we bought chocolates' $= 153$	(<i>ii</i>)
we like them' $= 816$	(<i>iii</i>)

Solving (i), (ii) and (iii)

Words	Codes
Ι	9
like	8
chocolates	5
we	1
bought	3
them	6

Hence, the codes for 'I bought them' is 936.

REASONING FOR COMPETITIONS > **Coding-Decoding** \swarrow **1-34**

267. (d) We have,

'fast and furious' is 'co mo jo'	(i)
'do it fast' is 'cha mo ga'	(<i>ii</i>)
'she did it' is 'ga la nop'.	(iii)

Solving (*i*), (*ii*) and (*iii*)

Words	Codes
fast	mo
and	co/jo
furious	co/jo
do	cha
it	ga
she	la/nop
did	la/nop

Hence, code for the word 'do' is 'cha'.

268. (c) We have,

'how are you' is '639'	(<i>i</i>)
'are you fine today' is '6453'	(<i>ii</i>)
'stay fine' is '58'.	(<i>iii</i>)

Solving (*i*), (*ii*) and (*iii*)

Words	Code
how	9
are/you	3/6
today	4
stay	8
fine	5

Hence, the code for 'today' in this system is '4'. **269.** (*c*) We have,

'Read this book' is '689'	(<i>i</i>)
---------------------------	--------------

```
'This book is useful' is '9675'
```

'Useful book is good' is '5479'

Solving (*i*), (*ii*) and (*iii*)

Words	Code
read	8
this	6
book	9
is/useful	5/7
good	4

Hence, the code for 'This book is good' in this system is either '6945' or '6974'.

270. (*c*) As the written code is,



Hence, the received message is 'Mother is ill.'

271. (b)

S.No.	Sentence	Code
Ι	roses are blue	il be pee
II	red flowers	sik hee
III	flowers are vegetables	pee mit hee

From statement II; red = sik

272. (*d*) From statement I; roses = either il or be Hence, cannot be determined is the correct answer.

273. (*a*) From statement II; red flowers = sik hee From statement I and III; are = pee

Therefore, 'vegetables are red flowers' is coded as 'mit pee sik hee'.

274. (b)

S.No.	Word	Code
Ι	how can you go	ja da ka pa
II	can vou come here	na ka sa ja
III	come and go	ra (pa) sa

From II and III; come = sa

From I and II; can you = ja ka

Now, the only left word in statement II is 'here' and the code for it is 'na'

275. (d)

...(*ii*)

...(*iii*)

S.No.	Word		Cod	le
Ι	WASP STINGS HARD	a	%	Ζ
II	HARD TO DEAL	Ζ	6	5
III	HEAL LONG TIME	8	9	6

From I and II; word 'HARD' is common and the code 'Z' is common. Hence the code of HARD is Z.

276. (b) Condition II is applied- The code for '2394587' is '€\$K@ZU€'.
277. (d) Condition III is applied- The code for '3721639' is '#Ř€&A\$#'.
278. (c) Condition III is applied- The code for 'PEOPLE' is '77&@X@'.
279. (a) Condition II is applied- The code for 'ITALICA' is '\$\alpha\$5X4#\$'.



ALPHABET TEST

In this chapter, we form new words by using the letters (alphabets) present in a given word.

Type 1. Word Formation



1.1. DETECTING THE WORD THAT CANNOT BE FORMED

In such type of questions, we are given a word and four other words as options. Out of the given four options, we are asked to determine the word that cannot be formed by using the letters of the word.

Example 1. ENVIRONMENT

- (a) NERVE (b) TENT
- (c) MENTOR (d) RIVET

Solution. (*b*) In the word TENT, there are two Ts. But there is only one T in the word ENVIRONMENT.

:. The word TENT cannot be formed from the given word.

Hence, the answer is Option (b).

1.2. Detecting the Word that Can be Formed \equiv

In such type of questions, we are given a long word and four other words as options. Out of the given four options, only one word can be formed from the letters of the given word. We have to determine the word that can be formed.

Example 2. URBANISATION

<i>(a)</i>	SANITATION	<i>(b)</i>	NATIONAL
<i>(c)</i>	ORBIT	(d)	AVIATION

Solution. (*c*) SANITATION needs 2 Ts while URBANISATION has only one.

NATIONAL contains L, which is not present in URBANISATION.

AVIATION contains V, which is not present in URBANISATION

URBANISAT I $ON \rightarrow ORBIT$

Hence, only ORBIT can be formed.

Type 2. *Pair Formation*

Example 3. How many pairs of letters are there in the word "SABERTOOTH" which have as many letters between them in the word as in the alphabet series?

(a) One (b) Two (c) Three (d) Four

Solution. (b) S A B E R T O O T H

Pair in forward direction: A & B have no letter between them in the given word as well as in the English alphabet series.

Pair in backward direction: R & O have 2 letters between them in the given word as well as in the English alphabet series.

Example 4. How many pairs of letters are there in the word "ACHIEVEMENTS" which have as many letters between them in the word as in the alphabet series?



Pair in forward direction: H & I and A & E have 0 and 3 letters respectively between them in the given word as well as in the English alphabet series.

Pair in backward direction: T & S have no letter between them in the given word as well as in the English alphabet series.

Type 3. Positions of Letters in a Word

Many different types of questions can be formed (and are asked in competitive examination), related to the positions of letters in the given word and in the English alphabet series. You shall get a fair idea of how to attempt such questions from the following examples:

Example 5. In English alphabet, which letter will be 4th to the right of the 11th letter from left end?

Solution.

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

4th letter to the right of 11th letter

Short Trick: If we have to find the letter which is at *x*th position to the right of a letter which is at *y*th position from the left, then the letter is at (x + y)th position from the left *i.e.* we will add.

Thus, 4th to the right of 11th letter from left = 11 + 4 = 15th Now, 15th letter from left end is O. **Example 6.** In english alphabet, which letter will be 6th to the left of the 17th letter from left end?

Solution.

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

6th letter to the left of 17th letter

Short Trick: If we have to find the letter which is at *x*th position to the left of a letter which is at *y*th position from the left then the required letter is at (x - y)th position from the left *i.e.* we will subtract.

Thus, 6th to the left of 17th letter from left = 17 - 6 = 11th Now, 11th letter from left end is K.

Example 7. In english alphabet, which letter will be 6th to the left of the 10th letter from right end?

Solution.

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 10th letter from right end 6th to the left of 10th

Short Trick: If we have to find the letter which is at *x*th position to the left of a letter which is at *y*th position from the right, then the required letter is at (x + y)th position from the right *i.e.* $\{27 - (x + y)\}$ th position from the left.

Thus, 6th to the left of 10th letter from right end = 10 + 6 = 16 from right

Now, 16th letter from right = 27 - 16 = 11th from left

Hence, K will be the answer.

Example 8. In english alphabet, which letter will be 8th to the right of 21st letter from right end?

Solution.

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 21st letter from right end 8th to the right of 21st

Short Trick: If we have to find the letter which is at *x*th position to the right of the letter which is at *y*th position from the right, then the required letter will be at (y - x)th position from the right *i.e.* $\{27 - (y - x)\}$ th position from the left.

Thus, 8th to the right of 21st letter from right end = 21 - 8= 13th from right

Now, 13th letter from right = 27 - 13 = 14th from left Hence, N will be the answer.

Example 9. In english alphabet, which letter will be exactly between 8th and 18th letter from left end?

Solution.

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 8th from left end 18th from left end **Short Trick:** To find mid letter, we add positions of letters and then divide the result by 2. This gives the position of the required letter.

Here, Mid letter =
$$\frac{8+18}{2} = \frac{26}{2} = 13$$
th

Now, 13th letter from left is M.

Example 10. In english alphabet, which letter will be exactly between 9th and 21st letter from right end?

Solution. Mid letter = $\frac{9+21}{2} = \frac{30}{2} = 15$ th from right

Now, 15th letter from right = 27 - 15 = 12th from left Hence, L will be the answer.

Example 11. In english alphabet, which letter will be exactly between 4th letter from left and 5th letter from right?

Solution. 5th letter from right = 27 - 5 = 22nd from left

So, mid letter =
$$\frac{4+22}{2} = \frac{26}{2} = 13$$
th from left

Hence, M will be answer.

Example 12. If the position of the letters in the word 'LEADERSHIP' are re-arranged in such a way that the position of the 1st and 2nd letters is interchanged, similarly the position of the 3rd and 4th letters are interchanged and so on. Which of the following will be the 5th from the left end after the rearrangement?

$$(a) D (b) E (c) H (d) R$$

Solution. (d) Given word is: 'LEADERSHIP'. After Rearrangement: 'ELDA<u>R</u>EHSPI'

The 5th letter from the left end after the rearrangement is 'R'.

Example 13. If the position of the letters in the word 'CYTOSKELETON' is re-arranged in such a way that the position of the 1st and 12th letters are interchanged, similarly the position of the 3rd and 11th letters are interchanged and so on. Which of the following will be the 7th from the right end after the rearrangement?

(a) O (b) K (c) E (d) L

Solution. (c) Given word: 'CYTOSKELETON'.

After Rearrangement: 'NOTEL<u>EKSOTYC'</u>

The 7th letter from the right end after the rearrangement is 'E'.

Example 14. If the position of the letters in the word 'PACEMAKING' are re-arranged in such a way that the position of the 1st and 6th letters are interchanged, similarly the position of the 2nd and 7th letters are interchanged and so on. Which of the following will be the 5th from the left end after the rearrangement?

	(<i>a</i>) G	(b) P	(c) N	(d) None of these
--	----------------	-------	-------	-------------------

Solution. (a) Given word: 'PACEMAKING'.

After Rearrangement: 'AKINGPACEM'

The 5th letter from the left end after the rearrangement is 'G'.

Type 4. Position of Digits in Number

In this topic, two types of questions are asked.

- I. In this type, a number is given and the students are asked to find the number of pairs of digits which have same number of digits between them in the number as in the number series.
- **II.** In this type, a number is given and the student is asked to change the positions of digits according to the given conditions and then find the digit at a particular position after the rearrangement.

I. PAIR OF DIGITS IN A NUMBER

Example 15. How many such pairs of Numbers are there in the number '5479681023', each of which has as many numbers between them in the number, as they have in the numeric series?

(a) Two (b) One (c) Three (d) None of these

Solution. (d) Given Number: '5479681023'



Pair in forward direction: 2 & 3 and 4 & 8 have 0 and 3 digits between them in the given number as well as in the numeric series.

Pair in backward direction: 5 & 4 and 1 & 0 have no digit and 9 & 3 have 5 digits between them in the given number as well as in the numeric series.

Example 16. How many such pair of Numbers are there in the number '7681259430', each of which has as many numbers between them in the number, as they have in the numeric series?

(a) Two (b) One (c) Four (d) Noneofthese Solution. (c) Given Number: '7681259430'



Pair in forward direction: 1 & 2 have no digit between them in the given number as well as in the numeric series.

Pair in backward direction: 7 & 6 and 4 & 3 have no digit and 8 & 5 have 2 digits between them in the given number as well as in the numeric series.

II. POSITION OF A DIGIT AFTER REARRANGEMENT

Example 17. The position of how many digits in the number '47982531' will remain unchanged if the digits within the number are written in ascending order from left to right?

(a) One (b) Two (c) Three (d) None

Solution. (d) Given number: '47982531'

After rearrangement: '12345789'

Hence, the position of no digits in the number remains unchanged.

Example 18. The position of first and eighth digits in the number '57623948' are interchanged. Similarly, the position of the second and the seventh digits are interchanged and so on. Which of the following will be the sixth from the right end after the rearrangement?

Solution. (*a*) **Given number:** '57623948'.

After rearrangement: '84932675'.

The digit which is sixth from the right end after the rearrangement is '9'.

Type 5. Dictionary Order



Dictionary order test is one of the easiest yet important concepts in Verbal Reasoning. In this

topic, students are asked to arrange the given words in dictionary order and find the place of a word based on the arrangement.

Steps to Solve the Questions:

- 1. Choose the word whose first letter comes first in the alphabetical series among the given words and put it at the first position in dictionary order.
- 2. If the first letter of all the given words is same then do the same for the second letter and so on.
- **3.** For the next words in the dictionary order follow the same procedure.

I. ARRANGEMENT OF WORDS IN DICTIONARY ORDER

Example 19. In the following question arrange the given words as per order in the dictionary.

1. Sale	2. Salad
3. Salted	4. Salesman
5. Salary	
(<i>a</i>) 2, 4, 1, 5, 3	(b) 2, 5, 1, 4, 3
(c) 2, 5, 1, 3, 4	(d) 2, 3, 5, 1, 4

Solution. (*b*) The arrangement of the words in a dictionary order will be as follows:

Salad		Salary		Sale		Salesman		Salted
(2)	\rightarrow	(5)	\rightarrow	(1)	\rightarrow	(4)	\rightarrow	(3)

Example 20. In the following question arrange the given words as per order in the dictionary.

1. Reassure	2. Reassuring
3. Reassured	4. Reassurance
5. Reason	
(<i>a</i>) 5, 4, 1, 2, 3	(b) 5, 3, 1, 4, 2
(c) 5, 4, 1, 3, 2	(d) 5, 3, 2, 1, 4

Solution. (*c*) The arrangement of the words in a dictionary order will be as follows:

Reason	Reassurance	Reassure	Reassured	Reassuring
$(5) \xrightarrow{\rightarrow}$	· (4) -	(1)	\rightarrow (3)	\rightarrow (2)

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II. POSITION OF WORD IN DICTIONARY ORDER

Example 21.	Arrange the following words as per order in the
dictionary and	choose the one that comes third.

1. Paint	2. Painful	
3. Painting	4. Pain	
(a) Pain	(b) Painful	

(c) Paint (d) Painting

Solution. (*c*) The arrangement of the words in a dictionary order will be as follows:

Pain \rightarrow Painful \rightarrow Paint \rightarrow Painting The word 'paint' will come at third position in the sequence.

Example 22. Arrange the following words as per order in the dictionary and choose the one that comes second from the right.

 Relieve Reliever 	 Relevant Relief
(a) Relieve(c) Relief	(b) Relevant(d) Reliever

Solution. (*a*) The arrangement of the words in a dictionary order will be as follows:

 $\text{Relevant} \rightarrow \text{Relief} \rightarrow \text{Relieve} \rightarrow \text{Reliever}.$

The word 'Relieve' will come at second position from the right in the sequence.

TYPE 6. Reverse Dictionary Order

In this topic, students are asked to arrange the given words in dictionary order and find the place of a word based on the arrangement.

Steps to Solve the Questions:

- 1. Choose the word whose first letter comes last in the alphabetical series among the given words and put it at the first position in reverse dictionary order.
- 2. If the first letter of all the given words is same then do the same for the second letter and so on.
- **3.** For the next words in the reverse dictionary order follow the same procedure.

I. ARRANGEMENT OF WORDS IN REVERSE DICTIONARY ORDER

Example 23. In the following question arrange the following words as per the reverse order in the dictionary.

 Paint Painting Painter 	 Painful Pain
(<i>a</i>) 3, 5, 1, 2, 4 (<i>c</i>) 3, 5, 1, 4, 2	$\begin{array}{c} (b) \ 2, 5, 1, 4, 3 \\ (d) \ 2, 1, 5, 3, 4 \end{array}$

Solution. (*a*) The arrangement of the words in reverse dictionary order will be as follows:

Painting		Painter		Paint		Painful		Pain	
(3)	\rightarrow	(5)	\rightarrow	(1)	\rightarrow	(2)	\rightarrow	(4)	

Example 24. In the following question arrange the following words as per the reverse order in the dictionary.

1. Accept	2. Acceptor
3. Accepted	4. Acceptant
5. Acceptive	
(<i>a</i>) 3, 2, 5, 1, 4	(b) 2, 5, 3, 4, 1
(c) 3, 5, 1, 2, 4	(d) 2, 5, 1, 4, 3

Solution. (*b*) The arrangement of the words in reverse dictionary order will be as follows:

 $\frac{\text{Acceptor}}{(2)} \rightarrow \frac{\text{Acceptive}}{(5)} \rightarrow \frac{\text{Accepted}}{(3)} \rightarrow \frac{\text{Acceptant}}{(4)} \rightarrow \frac{\text{Accept}}{(1)}$

II. POSITION OF WORD IN REVERSE DICTIONARY ORDER

Example 25. Arrange the following words as per the reverse order in the dictionary and choose the one that comes third.

1. Deaf		2. Dead
3. Dear		4. Deal
(a) Doof	(b) Dood	(a) Deal

(a) Deaf (b) Dead (c) Deal (d) Dear

Solution. (*a*) The arrangement of the words in reverse dictionary order will be as follows:

 $\text{Dear} \rightarrow \text{Deal} \rightarrow \text{Deaf} \rightarrow \text{Dead}.$

The word 'Deaf' will come at third position in the sequence.

Example 26. Arrange the following words as per the reverse order in the dictionary and choose the one that comes second.

1. Assemble	2. Assert
3. Assess	4. Assent
(a) Assess	(b) Assent
(c) Assert	(d) Assemble

Solution. (*c*) The arrangement of the words in reverse dictionary order will be as follows:

Assess \rightarrow Assert \rightarrow Assent \rightarrow Assemble.

The word 'Assert' will come at second position in the sequence.

Type 7. Alphanumeric Series



It is a sequence which consists of alphabets, numbers and symbols.

ELEMENT AT A PARTICULAR POSITION FROM EITHER LEFT OR RIGHT END

Short Trick or Formulas to Solve Questions

1. Left end - Left = Left end

Example: 3rd to the left of 4th element from left end = 4 - 3 = 1 *i.e.* 1st element from the left end.

2. Right end + Left = Right end

Example: 3rd to the left of 4th element from the right end = 4 + 3 = 7 *i.e.* 7th element from the right end.

3. Right end – Right = Right end

Example: 3rd to the right of 4th element from the right end = 4 - 3 = 1 *i.e.* 1st element from the right end.

4. Right + Left end = Left end

Example: 3rd to the right of 4th element from the left end = 4 + 3 = 7 *i.e.* 7th element from the left end.

Example 27. Which element is 4th to the right of 6th from left in the given series?

A H © Y T O P 7 2 \$ D G T 5 & L 1 7 @ % K + S I (a) \$ (b) D (c) 2 (d) G

Solution. (*a*) The given series 'A H © Y T O P 7 2 \$ D G T 5 & L 1 7 @ % K + S I'.

The element which is 4th to the right of 6th from left end = (4+6) from left = 10th from left.

Hence, the element which is 10th from left end is '\$'.

Example 28. In the alphanumeric series given below, which element is 3rd to the right of 16th from right in the given series?

9 V R B # Y 5 M © P 8 * K 9 2 £ E 1 3 N 5 I T @ 3 A R C

(a) 2 (b) E (c) 9 (d) \pounds

Solution. (d) The given series $\$ 9 V R B # Y 5 M \odot P 8 * K 9 2 \pounds E 1 3 N 5 I T @ 3 A R C'.$

The element which is 3rd to the right of 16th from right

= (16-3) from right

= 13th from right.

Hence, the element which is 13th from right end is '£'.

Some Important Words and Their Meanings to Solve Questions

- **1.** Followed by: A followed by B will be written as **AB**
- **2.** Preceded by: A preceded by B will be written as **BA**.
- **3.** Follows: A follows B will be written as BA.
- 4. Precedes: A precedes B will be written as AB.
- 5. Succeeded by: A succeeded by B will be written as AB.
- 6. Succeeds: A succeeds B will be written as BA.

Example 29. In the given series how many such letters are there which are immediately followed by symbol?

μ I © F D Q S 1 B π Y O ¥ H 0 C β 9 D C 8 L K D 2 F M P \$ 7

(a) Five (b) Three (c) Four (d) Noneof these **Solution.** (a) The given series ' μ I © F D Q S 1 B π Y O ¥ H 0 C β 9 D C 8 L K D 2 F M P \$ 7'.

Number of such letters which are immediately followed by symbol are 'I \mathbb{O} , B π , O ¥, C β , P \$'.

Hence, there are five such letters.

Example 30. How many such symbols are there in the given arrangement which are immediately preceded by an alphabet?

R Z % G 7 D Q K I 5 Y & T 9 @ 6 4 V & L 3 8 E # 6 Z \$ U ¥ K

<i>(a)</i>	Five	<i>(b)</i>	Two
(c)	Six	(d)	None

Solution. (c) The given series 'R Z % G 7 D Q K I 5 Y & T 9 @ 64 V & L 3 8 E # 6 Z \$ U ¥ K'.

Number of such symbols which are immediately preceded by an alphabet are 'Z %, Y &, V &, E #, Z \$, U ¥'.

Hence, there are six such symbols.



Type 1. Word Formation

I. DETECTING THE WORD THAT CANNOT BE FORMED

DIRECTIONS (1–20): In each of the following questions, a word has been given, followed by four other words, one of which cannot be formed by using the letters of the given word. Find that word.

1.	EFFLORESCENT (<i>a</i>) CREST (<i>c</i>) ROLER	(b) FOREST
2.	AUTOBIOGRAPHY (<i>a</i>) TROOP (<i>c</i>) GRAPHIC	(b) BRIGHT(d) TROPHY
3.	CHRONOLOGICAL (a) CALL (c) CALLICO	(b) LOGIC(d) ANALOGY
4.	PRONOUNCEMENT (a) MOUNT (c) PAVEMENT	(b) CEMENT (d) NOUN
5.	SPECULATION (a) SPECIAL (c) SECULAR	(b) TOPIC(d) CAUTION
6.	EXAMINATION (a) NATION (c) MENTION	(b) EXAM(d) AMBITION
7.	COURAGEOUS (a) COURSE (c) SECURE	(b) GRACE(d) ARGUE
8.	PREDICAMENT (a) CEMENT (c) PREDICT	(b) DEMENTIA (d) PRIMER
9.	MEASUREMENT (<i>a</i>) MASTER (<i>c</i>) SUMMIT	(b) EASTERN(d) MEAN

		REASONING FOR COMPETITION	s 🖏	Alphabet Test 🖉 🛛 2-6	; =	
10.	LEGIBILITY			(c) NATIONAL	(d)	EXAMINER
	(a) BILL	(b) ABILITY	26	TRADITIONAL		
	(c) BIG	(d) LEG	20.	(a) ANIMAL	<i>(b)</i>	DIRTY
11.	INTELLIGENCE			(c) NATION	(d)	RADIO
	(a) CANCEL	(b) NEGLECT	27.	CONTROVERSY		
	(c) GENTLE	(d) INCITE		(a) STORY	<i>(b)</i>	YOURS
12.	CUMBERSOME			(c) RIVER	(d)	OTHER
	(a) MERCY	(b) MOUSE	28.	CORRESPONDING		
	(c) SOBER	(d) ROME		(a) REPENT	<i>(b)</i>	RESPONSE
13.	ADMINISTRATION			(c) CORRECT	(d)	DISCERN
	(a) SITUATION	(b) RATION	29	IMMEDIATELY		
	(c) STRAIN	(d) TRADITION	<u> </u>	(a) DIALECT	(b)	LIMITED
14.	RAILWAYSTATION			(c) DIAMETER	(d)	DICTATE
	(a) OSTTTIS	(b) STORY	20		()	
	(c) STAIR	(d) NOTARY	30.	f UNDAMENTAL	(b)	FUNDS
15.	MANIPULATE			(a) DETRIMENTAL	$\begin{pmatrix} 0 \end{pmatrix}$	DRUM
	(a) MANTLE	(b) PINT			(u)	DICOM
	(c) PLATE	(d) POLLUTE	31.	EDUCATIONIST	(1)	DDEGG
16.	PRESUMPTION			(a) DUCK (c) CALITION	(<i>b</i>)	DKESS
101	(a) TIER	(b) POMPOUS		(c) CAUTION	(a)	NUTION
	(c) PUMP	(d) RUIN	32.	URBANIZATION		
17	RECAPITI I ATION			(a) NATURAL	(b)	RATIONAL
1/.	(a) CAPTURE	(b) TABULATION		(c) BAND	(d)	TURBAN
	(c) RELATION	(d) PICTURE	33.	IMPATIENCE		
18	INFLATIONARY			(a) IMPACT	<i>(b)</i>	CENTRE
10.	(a) FLAIR	(b) FAULTY		(c) REMAIN	(d)	PENCIL
	(c) NATIONAL	(d) RATION	34.	REMEMBERING		
10				(a) NEGRO	<i>(b)</i>	AGREE
19.	$\Gamma LAMBOTANT$	(b) Bout		(c) RAIN	(d)	GREEN
	(a) Lamb (c) Moan	(d) Boat	35.	NEWSPAPER		
20				(a) SWEET	<i>(b)</i>	REPEAT
20.	(a) Crah	(b) Nine		(c) SOUR	(d)	WASP
	(a) Erab	(d) Rice	36	How many words with or	with	out meaning can be formed
	(c) Dure	(4) 1100		with the letters of the wo	ord '	MANGO' using each letter
	DETECTING THE WO	ord that Can be Formed \equiv		exactly once?	14 1	in in (100° using each letter
Diri	ECTIONS (21–35): In e	each of the following questions,		(<i>a</i>) 240 (<i>b</i>) 120	<i>(c)</i>	130 (d) None of these
choo	se one word which can	be formed from the letters of the	37	How many words with or	with	out meaning can be formed
give	n word.		07.	with the letters of the word	1 'DF	LHI' which begins with the
21.	MEASUREMENT			letter 'E'?		[CGPSC 2017]
	(a) SUMMIT	(b) ASSURE		(<i>a</i>) 24 (<i>b</i>) 32	(<i>c</i>)	33 (d) None of these
	(c) MASTER	(d) MANTLE	38	How many independent we	orde e	on HEARTLESS be divided
22.	COMMUNICATION		50.	in without changing the or	rder o	of the letters and using each
	(a) COUNTRY	(b) UNIFICATION		letter only once?		[APPSC]
	(c) AMMUNITION	(d) MONITOR		(a) 2 (b) 3	(<i>c</i>)	4 (<i>d</i>) 5
23.	REPUTATION		30	From the word "ASTOL		R" how many independent
	(a) RETIRE	(b) TUTOR	59.	words can be made without	t cha	nging the order of the letters
	(c) PONDER	(d) REQUIRE		and using each letter only	once	
24.	ULTRANATIONALISM	Ν		(a) None (b) Two	(c)	Three (d) Four
-	(a) ULTRAMODERN	(b) ULTRAMONTANE	10	Which of the following wa	rdea	an he formed from the latter
	(c) ULTRAIST	(d) ULULATE	40.	vdeinratoi	TUS C	
25.	EXAMINATION			(a) Dictionary	(h)	Directory
	(a) ANIMAL	(b) ANIMATION		(c) Direction	(d)	Doctrine
			1	· /	、 /	

S Alphabet Test ∉ 2-7 **REASONING FOR COMPETITIONS**

- 41. If it is possible to make only one meaningful word with the Third, Seventh, Eighth and Tenth letter of the word COMPATIBILITY, which of the following would be the last letter of that word? If no such word can be made, give 'X' as your answer and if more than one such word can be formed, give your answer as 'Y'. (*a*) B (b) I (d) X (c) Y
- 42. Which single letter can be prefixed to the following words in order to obtain entirely new words? (Same letter has to be prefixed in all the five words) EAT OUR IS AS AT

(*a*) H (b) S (c) M (d) B

- **43.** Name a single letter, which can be deleted from the body of the following words to form entirely new words? HOST POST COST LOST STOP (*a*) T (b) S (c) O (*d*) P
- 44. Identify the single letter, which when removed from the following words from new words. MINK, LAMP, TEAM, WARM (a) L (*b*) M (d) A (c) R
- **45.** How many meaningful English words can be made with the letters 'OEHM' using each letter only once in each word? (b) Three (c) Two (*a*) Four (d) One
- The letters of the word "APRSWRO" are not in order, if **46**. arranged properly they form a bird's name. What is the last letter of the word?

(*b*) W (*a*) O (c) P $(d) \mathbf{R}$

47. How many meaningful three letter English words can be formed with the letters AER, using each letter only once in each word?

(*a*) 1 (*b*) 2 (c) 3 (*d*) None of these

- 48. How many meaningful English words can be made with the letters ATLE using each letter only once in each word? (*b*) 2 (a) 1 (c) 3 (*d*) None of these
- **49.** How many meaningful English words can be made with the letters VLEI using each letter only once in each word? (*b*) 2 (*d*) None of these (*a*) 1 (c) 3
- 50. How many meaningful English words can be made with the letters EMTA using each letter only once in each word? (*d*) None of these (*a*) 1 (*b*) 2 (c) 3
- 51. How many meaningful English words can be formed with the letters ADIC using each letter once in each word? (*d*) None of these (*a*) 1 (b) 2(c) 3

Type 2. Pair Formation

52. How many such pairs of letters are there in the word ENGLISH, each of which has as many letters between its two letters as there are between them in the English alphabet?

(*a*) 1 (*b*) 2 (c) 3 (d) More than three

53. How many such pairs of letters are there in the word SENDING, each of which has as many letters between

its two letters as there are between them in the English alphabet?

- (*c*) 3 (*a*) 1 (*b*) 2 (d) More than three
- How many such pairs of letters are there in the word 54. CHANNEL, each of which has as many letters between its two letters as there are between them in the English alphabet?

- 1 (*b*) 2 (c) 3 (d) More than three
- How many such pairs of letters are there in the word 55. OVERWHELM each of which has as many letters between its two letters as there are between them in the English alphabet? (c) 3 (d) More than three

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

How many such pairs of letters are there in the word 56. COMPUTER, each of which has as many letters between its two letters as there are between them in the English alphabet?

(*a*) 1 (*b*) 2 (c) 3 (d) More than three

- 57. How many such pairs of letters are there in the word HORIZONTAL, each of which has as many letters between its two letters as there are between them in the English alphabet?
 - (*a*) 1 (*b*) 2 (c) 3 (d) More than three
- 58. How many such pairs of letters are there in the word DUPLICATE, each of which has as many letters between its two letters as there are between them in the English alphabet?

- (b) 2(*c*) 3 (d) More than three 1
- 59. How many such pairs of letters are there in the word PERISHED, each of which has as many letters between its two letters as there are between them in the English alphabet?
 - (*a*) 1 (*b*) 2 (*c*) 3 (d) More than three
- How many such pairs of letters are there in the word 60. STREAMING each of which has as many letters between its two letters as there are between them in the English alphabet? (*c*) 3 (*a*) 1 (*b*) 2 (d) More than three
- How many such pairs of letters are there in the word 61. DAREDEVIL, each of which has as many letters between its two letters as there are between them in the English alphabet?

- (*a*) 1 (c) 3 (d) More than three How many such pairs of letters are there in the word
- 62. GOVERNMENT, each of which has as many letters between its two letters as there are between them in the English alphabet?

$$(a) 1 \qquad (b) 2 \qquad (c) 3 \qquad (d) \text{ More than three}$$

- 63. How many such pairs of letters are there in the word VIRTUAL, each of which has as many letters between its two letters as there are between them in the English alphabet? (*a*) 1 (b) 2(c) 3 (d) More than three
- **64**. How many such pairs of letters are there in the word PACKETS, each of which has as many letters between its two letters as there are between them in the English alphabet?

(*a*) 1 (*b*) 2 (c) 3 (d) More than three

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65. How many such pairs of letters are there in the word WONDERS, each of which has as many letters between its two letters as there are between them in the English alphabet?

 $(a) 1 \qquad (b) 2 \qquad (c) 3 \qquad (d) \text{ More than three}$

66. How many such pairs of letters are there in the word FORMATION, each of which has as many letters between its two letters as there are between them in the English alphabet?

 $(a) 1 \qquad (b) 2 \qquad (c) 3 \qquad (d) \text{ More than three}$

Type 3. Positions of Letters in a Word

67. In english alphabet which letter will be 8th to the left of the 25th letter from left end?

(a) P (b) Q (c) R (d) S

68. In english alphabet which letter will be 6th to the left of the 17th letter from right end?

 $(a) \quad \mathsf{B} \qquad (b) \quad \mathsf{C} \qquad (c) \quad \mathsf{D} \qquad (d) \quad \mathsf{E}$

- 69. In english alphabet, which letter will be exactly between 8th letter from left and 3rd letter from right?
 (a) N (b) O (c) P (d) Q
- **70.** If each of the vowels in the word GOLIATHS is changed to the next letter in the English alphabetical series and each consonant is changed to the previous letter in the English alphabetical series, and then the alphabets so formed are arranged in alphabetical order from left to right, which of the following will be sixth from the left of the new arrangement thus formed?

 $(a) \quad F \qquad (b) \quad G \qquad (c) \quad J \qquad (d) \quad P$

- 71. If it is possible to make only one meaningful word with the first, second, fifth and sixth letters of the word PYGMALION, which of the following would be the second letter of that word from the right end? If no such word can be made, give 'X' as your answer and if more than one such word can be formed, give your answer as 'Z' $(x) = \frac{1}{2} \sum_{i=1}^{n} \frac{1}{2$
 - (a) P (b) A (c) X (d) Z
- 72. If the positions of letters in the word 'GOVERNMENT' are re-arranged in such a way that the position of 1st and 2nd letters are interchanged, similarly the position of the 3rd and 4th letters are interchanged and so on. Which of the following will be the 5th letter from the left end after the rearrangement?

(a) V (b) E (c) N (d) R

73. If positions of the letters in the word 'REPUBLICAN' are re-arranged in such a way that the position of the 1st and 10th letters are interchanged, similarly the position of the 2nd and 9th letters are interchanged and so on. Which of the following will be the 4th from the right end after the rearrangement?

(a) U (b) P (c) B (d) L

74. If positions of letters in the word 'FARSIGHTED' are rearranged in such a way that the position of 1st and 2nd letters are interchanged, similarly the position of 3rd and 4th letters are interchanged and so on. Which of the following will be the 4th letter from the left end after the rearrangement?

- (a) S (b) G (c) I (d) None of these
- **75.** If positions of the letters in the word 'BLASTODERMIC' are re-arranged in such a way that the position of 1st and 12th letters are interchanged, similarly the position of 2nd and 11th letters are interchanged and so on. Which of the following will be the 7th letter from the left end after the rearrangement?
 - (a) O (b) D (c) E (d) R
- **76.** If positions of the letters in the word 'HETEROGRAM' are re-arranged in such a way that the position of 1st and 6th letters are interchanged, similarly the position of the 2nd and 7th letters are interchanged and so on. Which of the following will be the 5th letter from the left end after the rearrangement?

(a) A (b) R (c) M (d) None of these

77. If positions of letters in the word 'STRAWBERRY' are re-arranged in such a way that the position of 1st and 2nd letters are interchanged, similarly the position of the 3rd and 4th letters are interchanged and so on. Which of the following will be the 7th letter from the right end after the rearrangement?

$$(a) R \qquad (b) E$$

78. If positions of letters in the word 'ABERRATION' are rearranged in such a way that the position of the 1st and 6th letters are interchanged, similarly the position of the 2nd and 7th letters are interchanged and so on. Which of the following will be the 8th letter from the left end after the rearrangement?

(c) A

(*d*) W

$$(a) R (b) A (c) E (d) T$$

79. If all the letters of the word 'IMAGINARY' are arranged in alphabetical order from the right end. Then position of how many letters remains unchanged?

(a) Three (b) One (c) Two (d) None of these

- 80. How many alphabets are there in the English alphabetical series which appear in the mirror as it is, without any change?
 (a) Nine (b) Eight (c) Ten (d) Eleven
- 81. How many alphabets in the English alphabetical series are there which appear in the water as it is, without any change?(a) Eight (b) seven (c) Nine (d) Six

82. If first three letters of the word 'COMPREHENSION' are reversed and then last three letters are added and then remaining letters reversed and added, then which letter will be exactly in the middle? [CGPSC 2017]
(a) N
(b) S
(c) E
(d) None of these

83. All the vowels are removed from the English alphabets. Remaining alphabets are arranged in decreasing order. The letter (alphabets) whose position remains the same in both increasing and decreasing order is? [CGPSC 2016]
(a) P (b) L (c) Q (d) None of these

SALPHABET TEST ♂ 2-9 **REASONING FOR COMPETITIONS**

(a)

- 84. If first three letters of the word 'ABSTRACTION' are reversed and then last three letters are added and then remaining letters are reversed and interchanged with their opposite letters in the English alphabet and added, then which letter will be exactly in the middle? (a) N (b) G (c) 0(*d*) None of these
- 85. Which of the following words has its letters in an alphabetical order? [UP Police 2019] (a) Shade (b) Heart (c) Billow (d) Charge
- 86. Which of the following words does NOT have its letters in an alphabetical order? [UP Police 2018] (a) Blank (b) Alloy (c) Empty (d) Begin
- 87. Which of the following words does NOT have its vowels in an alphabetical order? [UP Police 2019]
 - (a) Aerious (b) Materious
 - (c) Imperious (d) Facetious
- 88. If the letters in the word BACKFIELDS are arranged as in the English alphabetical order, then which letter will be to the second right of the letter 'F', after the rearrangement? (c) E (a) C (*b*) L (*d*) K

[RRB ALP 2018]

TYPE 4. **Position of Digits in Number**

89. Unscramble the following letters to frame a meaningful word. Then find out the correct numerical position of the letters.

	0	Т	Y	S	R	Н	Ι
	1	2	3	4	5	6	7
(a) (c)	6742 6452	6742153 (b) 6 6452173 (d) 6			241375		

- 90. Find the hidden meaningful word from the coded alphabets if the alphabets are in reverse order.
 - (*a*) 11, 15, 26, 13, 22 (*b*) 15, 11, 22, 26, 13
 - (c) 11, 22, 15, 13, 26 (*d*) 26, 22, 15, 13, 11
- Given below are the jumbled letters of a word and their 91. corresponding numbers. Select the combination of number that makes a meaningful word.

	С	N	A	S	Р	Н	Ι
	1	2	3	4	5	6	7
(a	e) 4572	2316		(b) 7	234516		
(<i>c</i>) 5742	2613		(d) 2	375416		

- 92. If the letters of the English alphabet are numbered serially, one of the answers given below has a meaningful word hidden in it. Identify the answer.
 - (*a*) 8, 15, 14, 5, 20, 19, 25 (*b*) 1, 12, 7, 5, 2, 18, 1

(*c*) 5, 14, 7, 9, 13, 5 (*d*) 16, 18, 15, 2, 11, 5, 13

93. Each letter given below is assigned a number. These have to be unscrambled into a meaningful word and the correct order of letters may be indicated from the given responses

Т	М	Н	R	Е	0
5	4	3	2	1	0

<i>(a)</i>	405312	<i>(b)</i>	504231
(<i>c</i>)	025314	<i>(d)</i>	315402

If the digits in the number 86435192 are arranged in 94. ascending order, what will be the difference between the digits which are second from the right and fourth from the left in the new arrangement?

(d) 4

- 95. If the digits in the number 25673948 are arranged in ascending order from left to right, what will be the sum of the digits which are fourth from the right and third from the left in the new arrangement? (c) 8 (d) 10
 - *(b)* 6 (*a*) 4
- 96. Position of how many digits in the number 9824753 will remain unchanged if the digits within the number are written in ascending order from left to right?

(a) One (*b*) Two (c) Three (d) None

97. Position of first and eighth digits in the number 85629721 are interchanged. Similarly, the position of the second and the seventh digits are interchanged and so on. Which of the following will be the sixth digit from the right end after the rearrangement?

(*a*) 9 (*b*) 2 (*c*) 7 (d) 6

If all the digits in the number '62748593' are written **98**. in ascending order from left to right, then which of the following digit is 5th from the left end?

$$(a) \ 4 \qquad (b) \ 7 \qquad (c) \ 5 \qquad (d) \ 6$$

- 99. Position of first and sixth digits in the number '2972485762' are interchanged and similarly, the position of the second and the seventh digits are interchanged and so on. Which of the following will be the fifth digit from the left end after the rearrangement?
 - (*a*) 2 (*b*) 6 (c) 5 (d) 4
- 100. Position of how many digits in the number '91538247' will remain unchanged if the digits within the number are written in ascending order from right to left (excluding 9)? (*b*) Two (c) Three (d) None (a) One
- 101. Position of how many digits in the number '38462915' will remain unchanged if the digits within the number are written in ascending order from left to right?
 - (a) One (*b*) Two (c) Three (d) None
- 102. Position of first and tenth digits in the number '8526297143' are interchanged. Similarly, the position of the second and ninth digits are interchanged and so on. Which of the following will be the 7th digit from right end after the rearrangement?

$$(a) 1 \qquad (b) 7 \qquad (c) 9 \qquad (d) \text{ None of these}$$

- **103.** How many such pairs of numbers are there in the number '6581606243', each of which has as many numbers between them in the number, as they have in the numeric series? (a) Two (b) One
 - (*c*) More than three (d) None of these

- 104. How many such pairs of numbers are there in the number '978159406', each of which has as many numbers between them in the number, as they have in the numeric series?
 114. Arrange the following words as per order in the dictionary and choose the one that comes first.
 1. Temple
 2. Tenant
 - (a) Six (b) Five
 - (c) Four (d) None of these
- **105.** How many such pairs of numbers are there in the number '579850213', each of which has as many numbers between them in the number, as they have in the numeric series?
 - (a) Four (b) Five (c) Three (d) None of these
- 106. How many such pairs of numbers are there in the number '12479683', each of which has as many numbers between them in the number, as they have in the numeric series?(a) Four (b) Five (c) Three (d) None of these
- 107. How many such pairs of numbers are there in the number '47681952', each of which has as many numbers between them in the number, as they have in the numeric series?(a) Four (b) Five (c) Three (d) None of these
- 108. How many such pairs of numbers are there in the number '79861524', each of which has as many numbers between them in the number, as they have in the numeric series?(a) Two(b) One(c) Three(d) None of these

Type 5. Dictionary Order

DIRECTIONS (109–113): In each of the following questions arrange the given words as per order in the dictionary.

109.	1. S 3. S 5. S	carf bhell tream	2. 4.	Scene Survey
	(a) (c)	1, 2, 4, 5, 3 3, 1, 2, 5, 4	(b) (d)	2, 4, 5, 1, 3 1, 2, 3, 5, 4
110.	1. R 3. R 5. R	Resign Residue Rescue	2. 4.	Repair Research
	(a) (c)	4 5 3 1 2 2 5 4 1 3	(b) (d)	2 5 4 3 1 5 4 3 1 2
111.	1. A 3. A 5. A	ambitious ambiguity animal	2. 4.	Ambiguous Animation
	(a) (c)	3, 2, 4, 1, 5 3, 2, 1, 5, 4	(b) (d)	3, 2, 5, 4, 1 3, 2, 4, 5, 1
112.	(i) (iii) (v)	Concession Conciliator Concerned	(ii) (iv)	Conception Conceive
	(a) (c)	(<i>iv</i>), (<i>v</i>), (<i>iii</i>), (<i>ii</i>), (<i>i</i>) (<i>iv</i>), (<i>ii</i>), (<i>v</i>), (<i>i</i>), (<i>iii</i>)	(b) (d)	(<i>iv</i>), (<i>ii</i>), (<i>v</i>), (<i>iii</i>), (<i>i</i>) (<i>iv</i>), (<i>iii</i>), (<i>v</i>), (<i>ii</i>), (<i>i</i>)
113.	(i) (iii) (v)	Inhabit Inherit Infatuation	(ii) (iv)	Ingenious Influence
	(<i>a</i>) (<i>c</i>)	(<i>i</i>), (<i>ii</i>), (<i>iii</i>), (<i>iv</i>), (<i>v</i>) (<i>iv</i>), (<i>v</i>), (<i>ii</i>), (<i>i</i>), (<i>iii</i>)	(b) (d)	(v), (iv), (i), (ii), (iii) (v), (iv), (ii), (i), (iii)

		and	choose t	the one t	hat con	nes	first.	in the a	letional y
		1. T	emple			2.	Tenant		
		3. 1	erminate	e		4.	Temperat	ture	
		(a)	Temple	; nto		(b)	Tenant	luro	
•	115	(0)		fallarria		(<i>u</i>) 1			
	115.	and	find the	lonown last wor	ig word d.	is as	s per the E	nglish d	letionary
		Leat	f, Less, I	Lean, Le	ave				
		<i>(a)</i>	Lean	(b) Lea	ave	(c)	Less	(d) Lea	f
l	116.	If the diction of the	ne giver ionary, w t, Knack	words which wo , Know,	are ar ord will Knob	ran be	ged accor at third pl	rding to ace?	English
		<i>(a)</i>	Know	(<i>b</i>) Kn	ack	(<i>c</i>)	Knit	(<i>d</i>) Kno	b
l	117.	Whi (<i>a</i>) (<i>c</i>)	ICh of the Improv Imprint	e followi e t	ng wor	ds a (b) (d)	ppears firs Impress Impugn	st in a die	ctionary?
	118.	Whi	ich of the	e follow	ing woi	rds a	appear 2nd	d in a dic	tionary?
		(a)	Rumina	ate		(b)	Rammag	e	
L	110	(C)	Rampa	nt		(a)	Rampage		
	119.	Wh1 in a	ch of the	e follow rv?	ing wo	rds	appear at	2nd last	position
		(<i>a</i>)	Walts	-) •		(b)	Wally		
		(<i>c</i>)	Wallow	7		(d)	Wallop		
;	120.	Whi	ch of the	e followi	ng wor	ds v	vould appe	ear at 3rd	position
		$\ln a$	dictiona Quits	ry?		(h)	Quibble		
		(c)	Quiver			(d)	Quivole		
	121.	In v	which or	rder do	the fo	llov	ving word	ds appea	ir in the
		dicti	ionary?	4		(;;)	Dantila		[APPSC]
		(<i>i</i>) (<i>iii</i>)	Repoin	ι	((u) (iv)	Repute		
		(<i>a</i>)	(iv), (i)	. (<i>iii</i>). (ii	i)	(<i>b</i>)	(<i>iii</i>), (<i>i</i>), ((ii), (iv)	
		(c)	(<i>iii</i>), (<i>i</i>)	, (iv), (ii	i)	(d)	(<i>i</i>), (<i>iv</i>), (iii), (ii)	
	122.	Arra	ange the i	followin	g word	s as	per their o	rder in ai	n English
		dict	ionary ai	nd choos	se the o	ne t effe	hat comes	first.	ico 2010]
		(a)	refocus	liciy, ici	10,005,1	(b)	refinery		ice 2019]
		(c)	reflecto	r		(d)	reflexes		
	123.	Arra	ange the	followin	g word	s as	per their o	rder in ar	n English
		dicti	ionary ai cet: podi	nd choos	se the o	ne t	hat comes	s first. נווסו	000 20101
		(a)	plutoni	c	tome, p	(b)	pocket		C5 2015]
		(c)	podium	1		(<i>d</i>)	poacher		
	124.	Arra	ange the	followin	g word	s as	per their o	rder in ar	n English
		dicti	ionary ai	nd choos	se the o	ne t	hat comes	s first.	ice 2019]
		(<i>a</i>)	Voyage	s	oruntee	л, v (b)	Voucher	104 401	ICE 2010]
		(c)	Volunte	eer		(d)	Voltmete	r	
	125.	Arra dicti	ange the	followin nd choos	ng word se the o	ls a ne t	s per their hat comes	order in first.	English

preview; pretence; previous; prettier

(a) preview

(c) previous

(b) prettier

(d) pretence

[UP Police 2019]

REASONING FOR COMPETITIONS 3 Alphabet Test 4 2-11 \equiv

126.	Arrange the given words occur in the dictionary.	in th	ne sequence [De	in which they elhi Police 2017]
	 Doom Drone Ding 	(2) (4)	Down Drape	
	 (a) 51243 (c) 52143 	(b) (d)	51234 52134	
127.	Arrange the given words occur in the dictionary.1. Quarantine3. Quantifier5. Quadriceps	in th 2. 4.	ne sequence [c Quadrangle Quadruple	in which they DSSSB LDC 2019]
128.	 (a) 51234 (c) 52134 Arrange the following wood 	(b) (d) ords i	25413 25431 in the order	in which they
	appear in an English diction1. Heist3. Heart5. Higher	onary 2. 4.	Height Hackle	[SSC CPO 2019]
	$\begin{array}{ll} (a) & 4, 3, 2, 1, 5 \\ (c) & 4, 2, 1, 3, 5 \end{array}$	(b) (d)	5, 4, 3, 1, 2 3, 5, 4, 1, 2	
129.	Select the option that rep given words as they would 1. Flexible 3. Flooring 5. Floater	resen l appe 2. 4.	ts the corre ear in an Eng Flower Flood	ct order of the lish dictionary. [SSC CPO 2020]
	$\begin{array}{ll} (a) & 3, 5, 4, 2, 1 \\ (c) & 2, 5, 4, 3, 1 \end{array}$	(b) (d)	1, 5, 4, 3, 2 1, 5, 3, 4, 2	
130.	Arrange the following we appear in an English diction 1. General 3. Gasket 5. Gather	ords i onary 2. 4.	in the order Gender Genial	in which they [SSC CPO 2019]
	$\begin{array}{ll} (a) & 4, 3, 2, 1, 5 \\ (c) & 5, 3, 2, 1, 4 \end{array}$	(b) (d)	3, 5, 2, 4, 1 3, 5, 2, 1, 4	
131.	Select the correct option the the given words in the or English dictionary. 1. Delicious 3. Delinquent	hat in der i 2. 4.	ndicates the a n which the [SSC GD Deliberate Delirium	arrangement of y appear in an Constable 2021]
	5. Delicacy (<i>a</i>) 2, 5, 3, 4, 1 (<i>c</i>) 2, 5, 1, 3, 4	(b) (d)	2, 5, 1, 4, 3 3, 5, 1, 4, 2	
132.	Select the correct option the the given words in the or English dictionary. 1. Poverty 3. Perturb	hat in der i 2. 4	ndicates the a n which the [SSC GD Pretension Pendant	arrangement of y appear in an Constable 2021]
	5. Pollution (<i>a</i>) 3, 5, 2, 1, 4	(<i>b</i>)	4, 3, 5, 1, 2	

(c) 4, 5, 3, 1, 2 (d) 3, 4, 2, 1, 5

133.	Select the correct op	tion that indicates the arrangement of
	the given words in t	he order in which they appear in an
	English dictionary.	[SSC GD Constable 2021]
	1. Freeze	2. Freedom
	3. Fryer	4. Fraud
	5. Fringe	
	(<i>a</i>) 5, 2, 1, 6, 4, 3	$(b) \ 5, 1, 2, 6, 4, 3$
	(c) 5, 2, 1, 6, 3, 4	(d) 5, 6, 2, 1, 4, 3

Type 6. Reverse Dictionary Order

DIRECTIONS (134–140): In each of the following questions arrange the given words as per reverse order of what they appear in dictionary.

134.	1. R 3. R 5. R	Rapid Rapt Refresh	2. 4.	Rapture Rapport
	(a) (c)	2, 3, 4, 5, 1 5, 2, 3, 4, 1	(b) (d)	3, 4, 2, 1, 5 3, 2, 4, 1, 5
135.	1. C 3. C 5. C	Fargle Fambit Famut	2. 4.	Garish Galore
	(a) (c)	1 2 5 3 4 1 2 3 5 4	(b) (d)	2 1 5 3 4 2 1 3 5 4
136.	1. P 3. P 5. P	Paradigm Paranoid Parity	2. 4.	Parameter Pariah
	(a) (c)	3, 5, 4, 1, 2 5, 4, 2, 3, 1	(b) (d)	3, 5, 4 2, 1 5, 4, 3, 2, 1
137.	(i) (iii) (v)	Novice Nonconformist Nonchalant	(<i>ii</i>) (<i>iv</i>)	Nonentity Nocturnal
	(a) (c)	(<i>i</i>), (<i>ii</i>), (<i>v</i>), (<i>iii</i>), (<i>iv</i>) (<i>iv</i>), (<i>ii</i>), (<i>v</i>), (<i>i</i>), (<i>iii</i>)	(b) (d)	(<i>i</i>), (<i>ii</i>), (<i>iii</i>), (<i>v</i>), (<i>iv</i>) (<i>iv</i>), (<i>iii</i>), (<i>v</i>), (<i>ii</i>), (<i>i</i>)
138.	(i) (iii) (v)	Lacerate Lacuna Labyrinth	(<i>ii</i>) (<i>iv</i>)	Laconic Laborious
	(a) (c)	(<i>iii</i>), (<i>ii</i>), (<i>i</i>), (<i>v</i>), (<i>iv</i>) (<i>iv</i>), (<i>v</i>), (<i>ii</i>), (<i>i</i>), (<i>iii</i>)	(b) (d)	(v), (iv), (i), (ii), (iii) (v), (iv), (ii), (i), (iii)
139.	(i) (iii) (v)	Tenacious Tensile Tenuous	(ii) (iv)	Tempt Tentative
	(a) (c)	(v), (iv), (iii), (i), (ii) (v), (ii), (iv), (i), (iii)	(b) (d)	(<i>ii</i>), (<i>iv</i>), (<i>i</i>), (<i>iii</i>), (<i>v</i>) (<i>v</i>), (<i>iv</i>), (<i>iii</i>), (<i>ii</i>), (<i>i</i>)
140.	1. E 3. E 5. E	Edgy Effrontery Elated	2. 4.	Efface Effusive
	(a) (c)	5, 3, 4, 2, 1 4, 3, 2, 1, 5	(b) (d)	5, 4, 3, 2, 1 4, 2, 3, 1, 5
141.	If th	e words are organize	d in	reverse order of what

at they appear in dictionary, which word will come at the third place. (b) Ordeum

plac	с.		
<i>(a)</i>	Odium	<i>(b)</i>	Ordeun
(<i>c</i>)	Oculist	(d)	Odious

- 142. If the words are organized in reverse order of what they appear in dictionary, which word will come at the 2nd place from right.
 - (a) Kindly (b) Kindred
 - (c) Kindness (d) Kindle
- 143. If the words are organized in reverse order of what they appear in dictionary, which word will come at the third place.
 - (b) Abash (a) Abase
 - (d) Abhor (c) Abate
- 144. If the words are organized in reverse order of what they appear in dictionary, which word will come at the 1st place.
 - (a) Debase (b) Debacle
 - (c) Debrief (d) Defer
- 145. If the words are organized in reverse order of what they appear in dictionary, which word will come at the 2nd place.
 - (a) Accede (b) Accolade
 - (d) Acclimatize (c) Accomplice
- 146. If the words are organized in reverse order of what they appear in dictionary, which word will come at the 3rd place.
 - (a) Caliber (b) Callous
 - (c) Callow (d) Calibrate
- 147. If the words are organized in reverse order of what they appear in dictionary, which word will come at the 1st place.
 - (a) Uncanny (b) Unctuous
 - (c) Uncertain (d) Uncouth
- 148. If the words are organized in reverse order of what they appear in dictionary, which word will come at the 2nd place.
 - (b) Captious (a) Capitalize
 - (c) Capitulate (d) Captive

Alphanumeric Series Туре 7.

DIRECTIONS (149–157): Study the following series carefully and answer the questions based on it.

- 149. Which element is 3rd to the right of 5th element from left end in the given series? 2 \$ D G T 5 & A H ^ Y T O P 7 % K + L 1 7 @
 - (*a*) H $(b)^{\wedge}$ (*d*) & (c) A
- 150. Which element is 8th to the right of 15th element from right end in the given series?

Y T O P 7 % K 2 \$ D G T 5 & A H ^ + L 1 7 @

- (*b*) 5 (c) A (*d*) None of these (*a*) &
- 151. In the alphanumeric series given below, which element is 5th to the right of 7th element from the left end in the given series? B * 6 8 J L % U @ # V 3 A & * 5 9 I N & E @ # U 1 (c) * (*a*) A (*b*) & (*d*) None of these
- 152. In the alphanumeric series given below, which element is 5th to the left of 15th from left in the given series? U @ # V 3 & A * B 6 8 J L % 9 I N & E @ # U 1 (*a*) 8 (*b*) B (c) J (*d*) None of these
- 153. In the alphanumeric series given below, which element is 6th to the left of 9th from right in the given series? 3 A N 5 I R 8 * K 9 \$ V B R # Y P 2 £ E 1 3 5 M © T D C (*a*) R (*b*) B (c) £ (d) #

154. In the alphanumeric series given below, which element is 5th to the right of 17th from right in the given series? 8 * K 9 \$ V R B # Y P 2 £ E 1 3 5 M © T ® 3 A N 5 I R C (d) 5(*b*) E (*c*) 3 (*a*) M

155. In the alphanumeric series given below, which element is 6t to the left of 17th from left in the given series? A 3 P K I µ B \$ Q 8 @ P A 1 R O M N B 7 S G L A € T B βURHCA9V (a) P (b) 1 (c) (a) (d) 8

- **156.** In the alphanumeric series given below, which element is 7th to the right of 9th from left in the given series? (a) R O M N B 7 S G L A € T B β U R H C A 9 V A 3 P K I µ B \$ Q 8 1 P A (a) 9 (b) U (c) β (d) H
- 157. In the alphanumeric series given below, which element is
- 5th to the right of 7th from left in the given series? M \$ T R J 1 M * 8 U S P M 7 K I £ M O Z R L 6 M 9 (a) * (*b*) 7 (c) S (*d*) None of these

DIRECTIONS (158–161): The questions are based on the series of symbols, letters and numbers given below: [APPSC] % 4 NZ5R # E 6H9 \$ 7KD @ G © 2 PO & M 3 T £ C 8

- 158. How many letters in the series are preceded by a symbol and followed by a number?
 - (a) 1 (b) 2(c) 3 (d) 4
- 159. If the letters in the series are arranged in alphabetical order, how any letters will remain at their place?
 - (a) 2(*b*) 3 (c) 4 (d) 5
- 160. How many symbols have either letters or numbers on both the sides?
 - (*a*) 5 (*b*) 4 (*c*) 3 (*d*) 2
- **161.** Identify the odd one: (*a*) 4Z5 (*b*) #EH (*c*) \$7D (*d*) &MT
- **162.** Which of the following is different from the others? (a) C8T3 (b) #ER5 (c) G©DK (d) \$7H6
- 163. How many "A" are there in the following series which are immediately followed by "B" as well as immediately preceded by "Z"? [APPSC] AMBZANAABZABAPZABAZAB (a) Three (b) Nil (c) One (d) Two
- **164.** 4 W X Z 8 Q P O J 6 G T M V E U H 5 3 B If the letters in the positions 8, 12, 13 and 15 from the left are picked to form a meaningful word, then the third letter of the word would be [RRB Group D 2018] (a) P (b) O(c) E (d) M
- 165. How many 'M's are immediately preceded and followed by 'N' in the following series? [UP Police 2018] M N N M N N M M M N N N O O M M M M N N M M MTTMNMNMNMN (d) 4
 - (*a*) 3 (*b*) 5 (*c*) 7