

LOGICAL REASONING

SAMPLE BOOK



LOGICAL REASONING



I'm the
Intelli Kid

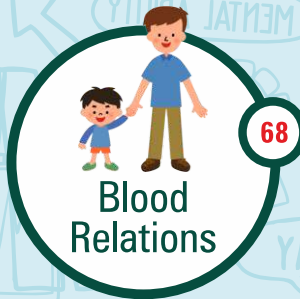
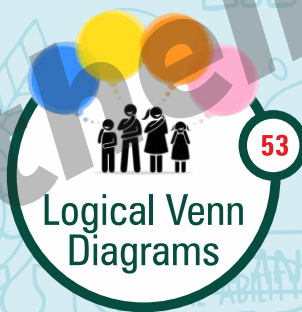
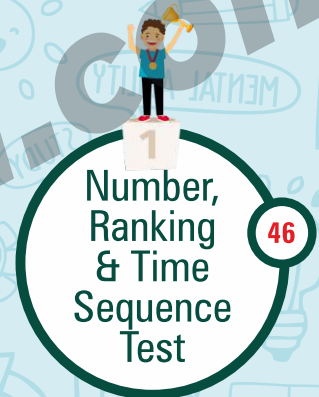
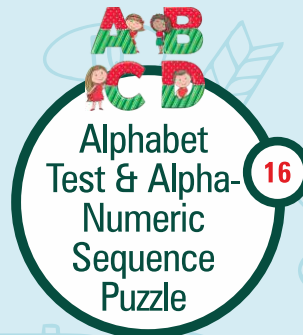
and
I'm becoming the
Best Version
of myself with





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GRADE-8





I AM PROGRESSING

(Tick mark the columns after achieving the Learning Milestones)



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LOGICAL REASONING

SAMPLE THEORY

CHAPTER 2

CODING & DECODING

WHAT IS CODING

Coding is a method of transmitting a message between the sender and the receiver that no third person can understand.

WHAT IS DECODING

Breaking the code to decipher the message.

TYPES OF CODING

1. LETTER CODING

In these questions, the letters in a word are replaced by certain other letters according to a specific rule to form its code. The student is required to detect the coding pattern/rule and answer the questions accordingly.

The letters and codes can be related to each other in either of the following ways :—

- Direct coding.
- Movement of letters relative to their position in the English alphabet.
- Reordering of letters.

Direct coding

In direct coding, particular letters are made codes for particular letters without there being any set pattern. In direct coding, the code letters occur in the same sequence as the corresponding letters occur in the words.

In questions on direct coding, either the particular codes of letters are given or the codes of two or more words are given and one is asked to find the codes of the given words involving only those letters for which the codes have already been mentioned.

SOLVED EXAMPLE

Example : If in a certain code, O is written as E, A as C, M as I, S as O, N as P, E as M, I as A, P as N and C as S, then how will COMPANIES be written in that code?

(1) SMINCPAMO

(2) SEIACPAMO

(3) SEINCPAMO

(4) SEINCPMIO

Solution :

C	O	M	P	A	N	I	E	S
↓	↓	↓	↓	↓	↓	↓	↓	↓
S	E	I	N	C	P	A	M	O

Hence, the answer is (3).

Movement of letters

In these questions, coding/decoding is done by moving the letters backward/forward relative to their positions in the English alphabet.

SOLVED EXAMPLE

Example : If TOP is coded as SNO, then how is FREEZE coded?

(1) EQDFYG

(2) ESDFYF

(3) GQFDYE

(4) EQDDYD

Solution :

T	O	P
-1 ↓	-1 ↓	-1 ↓
S	N	O

Clearly, each letter in the word is moved one step backward to obtain the corresponding letter of code.

Thus, FREEZE will be coded as :

F	R	E	E	Z	E
-1 ↓	-1 ↓	-1 ↓	-1 ↓	-1 ↓	-1 ↓
E	Q	D	D	Y	D

Hence, the answer is (4).

Reordering of letters

In these questions, the alphabets used in the letter and the code are same, but reordered using a fixed pattern.

SOLVED EXAMPLE

Example : In a certain code EXPLAINING is written as PXEALNIGNI, how is 'PRODUCED' written in that code?

(1) ORPUDDEC

(2) ROPUDECD

(3) ORPUDECD

(4) DORPDECU

Solution : To code the word 'EXPLAINING', the first three letters were written in the reverse order, then the next two letters in the reverse order, then the next two letters and finally the last three letters in the reverse order.

LOGICAL REASONING

SAMPLE EXERCISE



EXERCISE

GRADE-8 Coding & Decoding



- If **PLOT = 5321**, **TAKE = 1790**, **PINK = 5469**, then what is **PLATE** ?
 (1) 35710 (2) 53710 (3) 53701 (4) 53071
- In a certain code language '**SUN**' is written as '**54**', then '**MOON**' is written as
 (1) 50 (2) 53 (3) 57 (4) 159

Directions (Q.3 & Q.4): The letter-group in each of these questions is to be codified as per the following number codes:

Letters	L	T	P	M	R	D	H	F	K	V
Number codes	3	0	4	9	2	1	5	7	6	8

- DHFMTRV**
 (1) 1579082 (2) 1579028 (3) 1570982 (4) 1570928
- KHVL RDP**
 (1) 6853214 (2) 6853124 (3) 6583214 (4) 6538214
- If **ACNE** is coded as **3, 7, 29, 11**, then **BOIL** will be coded as
 (1) 5, 31, 21, 25 (2) 5, 31, 19, 25 (3) 5, 29, 19, 25 (4) 5, 29, 19, 27
- If **ACT = 8** and **LANE = 8**, then how will **SNAKE** code :
 (1) 8 (2) 9 (3) 10 (4) 11
- If **17 • 18 = 306** and **14 • 23 = 330**, then **10 • 12 =**
 (1) 121 (2) 306 (3) 345 (4) 129
- In a certain code '**DIVISION**' is written as **DVISIOIN**'. How is **STATES** written in that code ?
 (1) SATETS (2) STAETS (3) SATTES (4) SAETTS
- In a certain code, '**FORGET**' is written as **DPPHCU**. How would '**DOCTOR**' be written in that code ?
 (1) BPAUMS (2) BPAUPS (3) EMDRPP (4) BPARPP
- In a certain code, '**CERTAIN**' is coded as '**XVIGZRM**'. How is '**MUNDANE**' coded in that code ?
 (1) NFMWZMV (2) VMZW MEN (3) NFMWZMX (4) NFMXZMV

11. If in any code language NATIONAL is written as MZORLMZO, then how is JAIPUR written in that language.
 (1) QZNRFI (2) PZNRFI (3) QZNRFE (4) QARNFI
12. In a certain code SPORADIC is written as QNRQJEB. How is TROUBLES written in that code ?
 (1) SQNTIFMC (2) TNGSRKA (3) TNGSTFMC (4) TFQSCMFT
13. If TRIANGLE is coded as ESXEMHKE, then SQUARE would be coded as _____.
 (1) RRUASF (2) RPUVSF (3) RRTSGF (4) RPUVSD
14. If NEWDELM is coded as HXDCVDM, then how will be NARTANA coded in that language ?
 (1) ZMZXGZG (2) ZMZXGZF (3) ZMZYGZF (4) ZMZYGZH
15. If 'orange' is called 'gher', 'gher' is called 'soap', 'soap' is called 'ink', 'ink' is called honey and honey is called 'orange', then which one of the following is used for 'washing clothes' ?
 (1) Honey (2) Ghee (3) Orange (4) None of these
16. If 'dog' is called 'cat', 'cat' is called 'lion', 'lion' is called 'ox', 'ox' is called 'cock', 'cock' is called elephant and 'elephant' is called 'donkey', then a farmer ploughs with which animal ?
 (1) Dog (2) Lion (3) Donkey (4) Cock
17. If 'air' means 'green', 'green' means 'blue', 'blue' means 'sky', 'sky' means 'yellow', 'yellow' means 'water' and 'water' means 'pink', then what is the color of the clear sky ?
 (1) Green (2) Sky (3) Yellow (4) Water
18. In a certain code language, if 'pen' means 'eraser', 'eraser' means 'book', 'book' means scale, scale means 'sharpener', 'sharpener' means 'duster' and 'duster' means 'table', then what is the name of the object that is used to clean the black board in that language ?
 (1) Duster (2) Sharpener (3) Scale (4) Table

Directions (Q. 19 to Q. 21) : In a code

- (i) 'Wp Lub Jz Pt' means 'Kindly Let Me Speak'
- (ii) 'Sa Tk Lub' means 'Kindly Go Forward'
- (iii) 'Pt Sun K' means 'Speak With Example'
- (iv) 'Jz Ha Tk' means 'Let Others Go'.

19. In the code what is for 'Example' ?
 (1) K (2) Pt (3) Sun (4) Data inadequate