



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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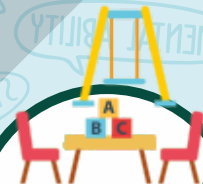
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LOGICAL REASONING

SAMPLE THEORY

CHAPTER 7

CODING DECODING



Coding: Coding is a method of expressing something in a secret way.

Decoding: Decoding is the process of understanding a code.

TYPES OF CODING DECODING

There are various types of Coding and Decoding. Here, we are going to learn about some of them.

Type 1: Number/Symbol Coding

In this type of coding either letters of the English alphabet or Numbers are assigned symbols or other letters or numbers to code them. Also, in this type of coding we deal with two different types of problems as shown below.

Case 1: Direct Coding

In this case either numbers/symbols are assigned to letters or letters/symbols are assigned to the numbers directly to form a code. We analyse the code as done in the following example.

Example: Study the following information carefully and answer the given question.

| LETTER | A | B | E | I | J | U | M | T |
|--------|---|---|---|---|---|---|---|---|
| CODES | * | 4 | % | 0 | 9 | # | 2 | 1 |

What is the code for MUMBAI ?

(1) 4 % 2 9 # 1

(2) 2 # 2 4 * 0

(3) 2 # 4 2 * 0

(4) 2 4 # 2 0 *

Solution: (2) $2 \# 2 4 \times 0$

On noting down the respective codes for each letter in the given word we get:

| LETTER | M | U | M | B | A | I |
|--------|---|---|---|---|---|---|
| CODES | 2 | # | 2 | 4 | * | 0 |

Therefore, the code for MUMBAI is $2 \# 2 4 \times 0$.

Case 2: Position of Letters in the English Alphabet Series

In this case the code for a word is formed by finding the position number of its letters in the English Alphabet series and then using mathematical operations (addition, subtraction, multiplication or division) on the position numbers.

Example: If $A = 1$, $B = 2$ and so on and AGE is coded as 13, then the word KING will be coded as _____.

(1) 21

(2) 41

(3) 31

(4) 42

Solution: (2) 41

As we can see, the code for the given letters A and B is as per their positions in the English Alphabet series as shown below:

| Alphabet | A | B | C | D | E | F | G | H | I | J | K | L | M |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|
| Number | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |

| Alphabet | N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Number | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 |

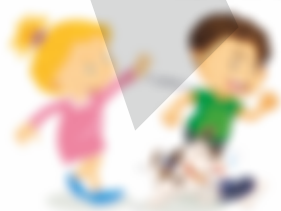
Now, on adding the position number of each letter of the given word we get:

$$AGE = A + G + E = 1 + 7 + 5 = 13$$

Similarly, on applying the same code rule for the word KING we get:

$$KING = K + I + N + G = 11 + 9 + 14 + 7 = 41$$

Therefore, the code for the word KING is 41.



LOGICAL REASONING

SAMPLE EXERCISE



EXERCISE

GRADE-5 Coding Decoding



Directions: Solve the following multiple choice questions by choosing the most appropriate option.

Directions (Q.1 to Q.3): Observe the table given below and answer the following questions.

| LETTER | K | A | L | T | C | O |
|--------|---|---|---|---|---|---|
| CODES | ☆ | △ | 2 | ÷ | # | 5 |

- What is the code for KOLKATA ?**
 (1) ☆ 5 2 ☆ △ ÷ △ (2) ☆ 5 2 △ △ ÷ ☆ (3) ☆ 5 ☆ 2 △ ÷ △ (4) 5 2 ☆ ☆ △ ÷ △
- Which of the following words is coded as # △ 2 2 ?**
 (1) CATS (2) TALK (3) CALL (4) LATE
- Identify the correct code for the word "LOCAL".**
 (1) 2 # △ 2 5 (2) 2 5 # △ 2 (3) 2 2 # △ 5 (4) 2 5 # 2 △
- If A = 2, B = 4, C = 6, D = 8 and so on, then what will be the code for the word "BAD" ?**
 (1) 428 (2) 248 (3) 482 (4) 842
- If A = 1, B = 2, C = 3 and so on and KILL is coded as 44, then the word LIVE will be coded as ____.**
 (1) 47 (2) 48 (3) 84 (4) 74
- If "CAMERA" is coded as "BZLDQZ", then "PICTURE" will be coded as ____.**
 (1) OHBSTQD (2) BSHOTQD (3) HOBSTQD (4) QOHBSTD
- If "SURAT" is coded as "UWTCV", then "JAIPUR" will be coded as ____.**
 (1) KCLRXT (2) CLKRXT (3) LCKRWT (4) XTRKCL
- If 'Travel' is called 'Car', 'Car' is called 'Drawing', 'Drawing' is called 'Dance', 'Dance' is called 'Sing' and 'Sing' is called 'Road', then we use a pencil for ____.**
 (1) Drawing (2) Dance (3) Sing (4) Travel
- If FAST is coded as 2468 and SLOW is coded as 6915, then which of the following words does 29148 stands for ?**
 (1) FLOAT (2) STARS (3) LIONS (4) FAILS

10. In a certain language, MELT is coded as P%Q\$ and FUND is coded as #9K7, then how will DENT be coded in the same language?
- (1) Q79\$ (2) 729Q (3) 79%# (4) 7%\$9
11. If Sky is called Blue, Blue is called Sea, Sea is called Green and Green is called Tree, then sharks live in the _____.
- (1) Sky (2) Sea (3) Green (4) Tree
12. If SPRING is coded as TDSJON, then AUTUMN will be coded as _____.
- (1) BSVAND (2) BSVJND (3) BNDVUB (4) BNDJUV
13. In a certain language, SISTER is coded as 126791, BONE is coded as 6246, then SON is coded as _____.
- (1) 623 (2) 624 (3) 342 (4) 672
14. If RAIN is coded as 1267 and DANCE is coded as 63762, then which of the following is the code for DRINK?
- (1) 12674 (2) 41267 (3) 76372 (4) 62341
15. In a certain code language 'Laptop' means 'Restaurant', 'Restaurant' means 'Hotel' and 'Hotel' means 'Food', then we stay at a _____ on trip.
- (1) Laptop (2) Restaurant (3) Hotel (4) Food

Directions (Q. 16 to Q. 18): In a certain code language the following words are coded with some numbers. Observe the codes and answer the following questions.

'You Go West' is coded as '126'

'Towards West Side' is coded as '767'

'Go that Side' is coded as '767'

16. Which code number is used to represent the word 'Towards'?
- (1) 3 (2) 1 (3) 6 (4) 7
17. The number 7 is used to represent the word _____.
- (1) Go (2) West (3) Towards (4) Side
18. How the sentence "You Go Towards that Side" will be coded as per the above code numbers?
- (1) 4367 (2) 43167
(3) 3467 (4) 43671
19. If in a code language, COULD is written as BNTNE and MARGIN is written as LZPQNM, then how will MODERATE be written in that code?
- (1) CMNFQNE (2) LNMTCMF
(3) LNTNCMF (4) NTNHCMF