

## CODING- DECODING



**Coding** is a process used to encrypt a word, a number in a particular code or pattern based on some set of rules. Hence Coding is the process of sending data from one person to another person in such a way that only the sender and receiver can understand the meaning without letting anyone else know the meaning of it.

**Decoding** It is the reverse process of converting the coded information back into original form understandable by a receiver. Hence, decoding is the process of converting the coded data back into original form by applying the process of coding but in reverse process.



The alphabet order and EJOTY concept:

By using this concept, we can easily remember the position of different alphabets and accordingly find out any letter without much effort. All we have to do is remember the place of these five letters which are mentioned below:

 $E \rightarrow 5$   $J \rightarrow 10$   $O \rightarrow 15$   $T \rightarrow 20$   $Y \rightarrow 25$ 

position	1	2	3	4	5	6	7	8	9	10
Letters	Α	В	С	D	E	F	G	Н	-	J
Backward order position	26	25	24	23	22	21	20	19	18	17
Forward order position	11	12	13	14	15	16	17	18	19	20
Letters	K	L	M	N	0	P	Q	R	S	U
Backward order position	16	15	14	13	12	11	10	9	8	7

Forward order position	21	22	23	24	25	26
Letters	Т	V	W	X	Υ	Z
Backward order position	6	5	4	3	2	1



#### **TYPES OF CODING**

- 1. Letter coding
- 2. Number Coding
- 3. Substitution coding
- 4. Deciphering Coding
- 5. Coding by combinations of letters, Nos. and Symbols

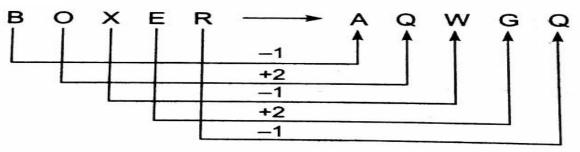


## **Letter Coding**

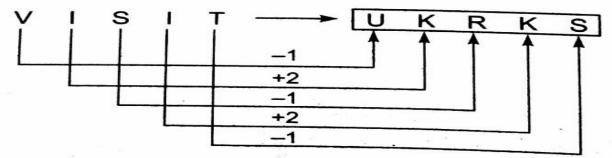
In this, we are going to deal with the types of questions, in which the letter of a word are replaced by certain other letters according to a specific pattern/rule to form a code.

**Example.** In a certain code language 'BOXER' is written as 'AQWGQ'. What will be the code of 'VISIT' in that code language?

**Solution:** UKRKS



Similarly,





- 1. In a certain code language COMPUTER is written as RFUVQNPC. How will MEDICINE be written in that code language?
- A) EOJDJEFM
- B) MFEDJJOE
- C) MFEJDJOE
- D) EOJFJEFM



- 2. In a certain code 'CERTAIN' is coded as 'BFQUZJM'. How is 'MUNDANE' coded in that code??
- A) LTMCZOF
- B) LVMEZOD
- C) NTOCNBF
- D) None of these



- 3. In a certain code 'SEQUENCE' is coded as 'FDOFVRFT. How is 'CHILDREN' coded in that code?
- A) OFESMJID
- B) OFSEJMID
- C) OFSEMJID
- D) OFSMEJID



- 4. In certain code 'HILTON' is written as 'I H T L N O'. How is 'BILLION' written
- in that code?
- A) IBLLOIN
- B) IBOILLN
- C) IBOILNL
- D) IBOLLIN

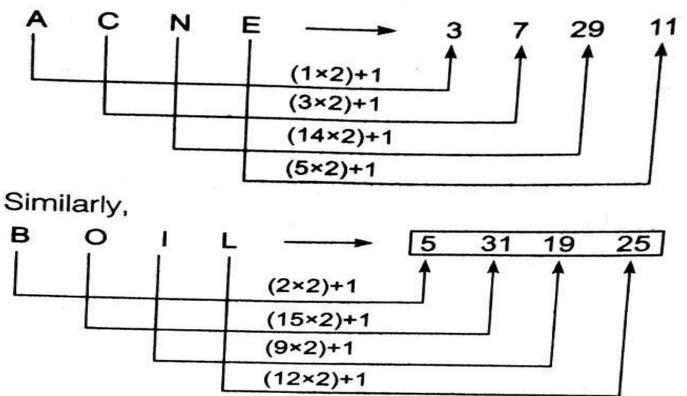


### **Number Coding**

In this, we are going to deal with the questions, in which the numerical code values are assigned to a word or alphabets according to predefined pattern.

**Example.** If 'ACNE' is coded as 3 7 29 11, then what will be code for 'BOIL' in that code language?

**Solution:** 5 31 19 25





- 5. If REQUEST is written as S2R52TU, then how will ACID be written?
- A) 1DJE
- B) 1C3F
- C) 1D3E
- D) 1D2F



6. If each of the letters in the English alphabet is assigned odd numerical value beginning A = 1, B = 3 and so on, what will be the total value of the letters of the word INDIAN?

- A) 86
- B) 88
- C) 89
- D) 96



7. If A = 2, M = 26, Z = 52, then BET = ?

- A) 45
- B) 54
- C) 64
- D) 72



8. DEER = 12215 and HIGH = 5654, how will you code HEEL?

- A) 4337
- B) 2328
- C) 3449
- D) 5229



- 9. If UNIVERSITY is 1273948756, how can TRUSTY be written in that code?
- A) 541956
- B) 531856
- C) 541856
- D) 531956



10. If in a certain code, 15789 is written as EGKPT and 2436 is written as ALUR, then how will 24539 be written in that code?

- A) ALGRT
- B) ALGUT
- C) ALEUT
- D) ALGTU



### **Substitution Coding:**

In such question, we are going to deal with the pattern of coding in which codes are assigned by the substitution method where in an artificial alternative is assigned to a given word and students are required to decipher the coding pattern to substance the other given word.

**Example.** If yellow is called blue, blue is called red, red is called pink, pink is called black and black is called orange, then what is the colour of blood?

**Solution:** We know, colour of blood = red

But according to question,

Red = pink, Therefore, the colour of blood = pink



11. If 'cook' is called 'butler', 'butler' is called 'manager', 'manager' is called 'teacher', 'teacher' is called 'clerk' and 'clerk' is called 'principal', who will teach in a class?

- A) Cook
- B) Butler
- C) Manager
- D) Clerk



12. If 'eye' is called 'hand', 'hand' is called 'mouth', 'mouth' is called 'ear', 'ear' is called 'nose' and 'nose' is called 'tongue', with which of the following would a person hear?

- A) Ear
- B) Nose
- C) Eye
- D) Tongue

**1**9



- 13. If 'bat' is 'racket', 'racket' is 'football', 'football' is 'shuttle', 'shuttle' is 'Ludo' and Ludo is 'carrom', what is cricket played with?
- A) Football
- B) Racket
- C) Bat
- D) Cannon



## **Deciphering Coding:**

In these types of question, we are going to deal with a message bearing a common code for given word/numeral. Students are required to identify the code from the common property of word/numeral and decipher the given codes with best alternatives.

**Example.** In a certain language, 'sun shines brightly' is written as 'ba lo sul', 'houses are brightly lit' as 'kado ula ariba' and 'light comes from sun' as 'dopikup lo nro'. What is the code for sun and brightly?

Solution: In the first and third statements, the common word is 'sun' and the common codeword is 'lo'. So, 'lo' is the code for 'sun'. In the first and second statements, the common word is 'brightly' and the common code word is 'ba'. So, 'ba' is the code for 'brightly'.



14. In a certain code language 'Pen pencil' is written as '\$£', 'eraser sharpener' is written as '@#' and 'pencil eraser' is written '\$@'. Then, what is the code for 'pen'?

- A) #
- B) \$
- C) £
- D) @



- 15. 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'?
- A) 9
- B) 8
- C) 6
- D) 5



- 'good time to buy' is written as 'sy bo nj kw'
- 'invest money and time' is written as 'sy ta ge mr'.
- 'buy good stuff only' is written as 'kw bo rd fp'.
- 'only work and money' is written as 'ta fp mr ux'.
- 16. What is the code for "invest time to work" in the give code language?
- A) sy bo mr fp
- B) ta fp ux nj
- C) mr sy bo ta
- D) ux ge nj sy



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- 'invest money and time' is written as 'sy ta ge mr'.
- 'buy good stuff only' is written as 'kw bo rd fp'.
- 'only work and money' is written as 'ta fp mr ux'.
- 17. What is the for "stuff" in the given code language?
- A) bo
- B) kw
- C) Either 'bo' or 'rd'
- D) rd



- 'good time to buy' is written as 'sy bo nj kw'
- 'invest money and time' is written as 'sy ta ge mr'.
- 'buy good stuff only' is written as 'kw bo rd fp'.
- 'only work and money' is written as 'ta fp mr ux'.
- 18. What is the code for "only time and money" in the given code language?
- A) bo nj ta ge
- B) mr ta sy fp
- C) ge fp ta bo
- D) sy bo ux fp



- 'good time to buy' is written as 'sy bo nj kw'
- 'invest money and time' is written as 'sy ta ge mr'.
- 'buy good stuff only' is written as 'kw bo rd fp'.
- 'only work and money' is written as 'ta fp mr ux'.
- 19. What is the code for "buy good" in the given code language?
- A) rd nj
- B) kw bo
- C) kw nj
- D) can't be determine



- 'good time to buy' is written as 'sy bo nj kw'
- 'invest money and time' is written as 'sy ta ge mr'.
- 'buy good stuff only' is written as 'kw bo rd fp'.
- 'only work and money' is written as 'ta fp mr ux'.
- 20. What is the code for "to" in the given code language?
- A) nj
- B) ge
- C) kw
- D) sy

#### NAAC GRADE 4+

## Coding by combinations of letters, Nos. and Symbols.

#### Example

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In a certain code,
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- 'today positive decent found' is written as '@6A @6V &7B @5Q' 'people attend daily party' is written as '@6V \*6V #5B @5A' 'regular fitness sound health' is written as '@6A @8P #8O @5E'
- 'picture perfect quality movie' is written as '#6B #8B #8V @8Q'

#### What is the code for the word 'perfect'?

#### Solution: @8Q

Symbols are number of vowels in the word

Letter is the last letter -3

Number is the number of letters in the word

If the number of letters is even, number is decreased by 1

If the number of letters is odd, number is increased by 1



In a certain code language,

'Earth Laughs With Flowers' is written as '\$G20 %G18 %I15 \$S21'

'Become What You Believe' is written as '%E12 %L21 \$Z1 \$N3'

- 21. What is the code of the word 'Wisdom'?
- A) %D19
- B) \$L19
- C) \$O19
- D) None of these



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- 22. '\$Z1' is the code for which of the following word?
- A) Own
- B) Reach
- C) Your
- D) Star



In a certain code language,

'Earth Laughs With Flowers' is written as '\$G20 %G18 %I15 \$S21'

'Become What You Believe' is written as '%E12 %L21 \$Z1 \$N3'

- 23. What is the code of the word 'Imagination'?
- A) \$Z15
- B) \$L1
- C) %L1
- D) %G13



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'Earth Laughs With Flowers' is written as '\$G20 %G18 %I15 \$S21'

'Become What You Believe' is written as '%E12 %L21 \$Z1 \$N3'

- 24. What is the code of 'Dreams Humanity' in the given code language?
- A) \$N5 \$G13
- B) %G13 %N5
- C) \$R8 %T17
- D) \$M5 %H14



- 25. In a certain coded language, ABC means 'You are lost'. Which letter stands for 'You'?
- I. OBM means 'We are classmates'.
- II. CLR means 'You love them'.
- III. OA means 'Hello lost'
- A) Only III
- B) Only I and III
- C) All I, II and III
- D) None of these



- 26. In a certain code language '176' mean tie clip button. Which number represents the word 'button' in that language
- I. In the same language, '175' mean 'clip your tie'.
- II. In the same language, '074' mean 'hole and clip'
- A) Only I
- B) Only II
- C) Both I and II required
- D) Both I and II are not required



# Any Doubts???