# Coding and Decoding

**Code Consists of Meaningful words**

1.      If 'dust' is called 'air', 'air' is called 'fire', 'fire' is called 'water', 'water' is called 'colour', 'colour' is called 'rain', and 'rain' is called 'dust', then where do fish live ?
 Ans : Water is called as **colour**

2.      If sky is called sea, sea is called water, water is called air, air is called cloud and cloud is called river, then what do we drink when thirsty ?
Ans : Water is called **air**

**Codes based on English Alphabets**

3.      If AUTHORITY can be written as YTUROHTIA, how can DESIGNATE are written in that code?
   Ans : Designate will be written as ESENGITAD

4.      In a certain code language, MADRAS is coded as NBESBT, how is BOMBAY coded in that code ?
Ans : Refer to the English alphabets:
The rule of coding is +1 Every letter is moving one step forward
∴ BOMBAY is coded as CPNCBZ

5.In a certain code, COMPUTER is written as RFUVQNPC. How is MEDICINE written in the same code ?
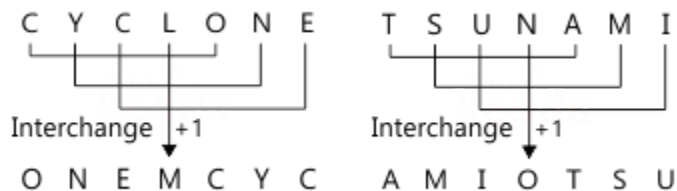Ans : EOJDJEFM
- There are 8 letters in the word.
- The coded word can be obtained by taking the immediately following letters of word, expect the first and the last letters of the given word but in the reverse order. That means, in the coded form the first and the last letters have been interchanged while the remaining letters are coded by taking their immediate next letters in the reverse order.

6.      If 'CAMEL' is coded as ECNCJ, then what is the code for 'TIGER'?
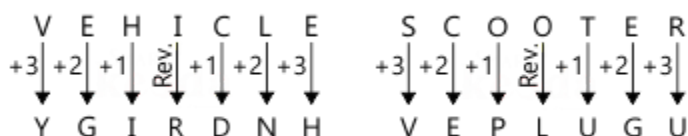Ans : As,

7.    If 'CYCLONE' is coded as ONEMCYC then what is the code for 'TSUNAMI'?

```
C  Y  C  L  O  N  E        T  S  U  N  A  M  I
   └──┴──┴──┐  │  └──┐      └──┴──┴──┐  │  └──┐
Interchange │+1            Interchange │+1
O  N  E  M  C  Y  C        A  M  I  O  T  S  U
```

8.    If 'VEHICLE' is coded as YGIRDNH then what is the code for 'SCOOTER'?
Ans :

```
 V    E    H    I  C    L    E        S    C    O    O  T    E    R
+3   +2   +1  Rev. +1  +2   +3       +3   +2   +1  Rev. +1  +2   +3
 Y    G    I    R  D    N    H        V    E    P    L  U    G    U
```

9.    If 'THEN' is coded as UIDO, 'THUS' is coded as UITT then what is the code for 'WHEN'?
Ans : In the given word, vowel is replaced by the letter immediately preceding it in the english alphabet series while the consonant is replaced by the letter immediately succeding it in the English alphabet series.

In this way we get the code for WHEN as XIDO.

**Codes based on Numbers and  Symbols**

10.    In a certain code ROSE is written as #43$ and FIRST is written as 5*#37. How is STORE written in that code?
Ans: In a certain code ROSE is written as #43$ and FIRST is written as 5 *#37. How is STORE written in that code ? Hence, we can code STORE as 374#$.

11.If "LESD" is written as " @ $ & # " , "NAC" is written as " % ? * ", how "CANDLES" is coded in the same way?
Answer: In the code, we can see that the code for L is @. Building on to that we can see that the option B) *?%&@$# is the correct option.

12.    If DELHI is coded as 73541 and CALCUTTA as 82589662, how can CALICUT be coded ?
Ans: Since, in CALICUT, C is coded as 8, A is coded as 2, L as 5, I as 1, U as 9, T as 6. So, code for CALICUT IS 8251896.

13.    If ROSE is coded as 6821, CHAIR is coded as 73456 and PREACH is coded as 961473, what will be the code for SEARCH ?
Ans : As per the codes given
ROSE=682        CHAIR=73456        PREACH=961473
Code for SEARCH will be=214673


14.    In a certain code language, if the number 1 is assigned to all the letters in odd numbered places in the alphabet and the remaining letters are assigned the number 2, than what is
The code for the word 'DANCE'?
        Ans : The question here states that all oddly occurring alphabets will be assigned the code '1' and all the evenly occurring alphabets will be assigned code '2′. Hence, A=1, B=2, C=1, D=2 and so on. This implies that the code for the word 'DANCE' will be 21211.


**Codes based on words**

15.    In a certain code language, if the value of CONTRACT = 56 and 'GROWTH' = 30, then what is the value of DISTRIBUTION?
Ans : Multiply the number with its previous number, so 8 * 7 = 56. Number of letters in the word GROWTH = 6, and 6 x 5 = 30. Similarly, Number of letters in the word DISTRIBUTION = 12.
=> 12 * 11 = 132.


16.    In a certain language, TEARS is coded as 18, so how will be WATER coded
Numeric position of each letters is first added until it reaches to a single digit number and then all the numeric values are added.
T=20 so 2+0=2, E=5  , A=1 , R=18, 1+8=9
S=19, 1+9=10, 1+0=1;   2+5+1+9+1=18


17.    If Z = 52 and ACT = 48, then BAT will be equal to
Ans : Z = 52 an ACT = 48
If the alphabet are written in serial number and each alphabet is give the code equal to its serial number.
then, Z=2×26=52
ACT=2(1+3+20)=48
Thus, BAT=2(2+1+20)=46


18.    If SNOW is coded as 7100, then WALL will be coded as
Here, Total of all the individual letters' numeric position is done and just to add some more complexity 00 is appended at the end. S=19, N=14, O=15 and W=23. So 19+14+15+23= 7100.
Wall =23+1.12+12=48  so 4800.

**Coded Sentence**

19.     In a certain code language, (A) 'pic vic nic' means 'winter is cold.' (B) 'to nic re' means 'summer is hot'. (C) 're pic boo' means 'winter and summer'. (D) 'vic tho pa' means 'nights are cold'. Which word in that language means 'summer' ?
a) nic b) re c) to d) pic
Ans  : From Statements 1 and 2    nic means is
From statements 1 and 3      pic means winter
Therefore, from statements 2 and 3   re means summer

20.     In a certain code language, '134' means 'good and tasty', '478' means 'see good pictures' and '729' means 'pictures are faint'. Which of the following digits stands for 'see'?
Ans : By comparing, we get
4=good     7=pictures   8=see    So, 8 stands for see.

21.     In a certain code language, 'col tip mot' means 'singing is appreciable' ; 'mot baj min' means 'dancing is good' and 'tip nop baj' means 'singing and dancing' , which of the following means 'good' in that code language ?
Ans :    In the first and second statements, the common code word is 'mot' and the common word is 'is'.    So, 'mot' means 'is'.
In the second and third statements, the common code word is 'baj' and the common word is 'dancing'.
So, 'baj' means 'dancing'.Thus, in the second statements, 'mint' means 'good'.

22..     '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'.
         What is the code for "invest time to work" in that code language?
         Ans :

S1:  good  time  to  buy
Code:  sy   bo   nj  kw

S2:  invest  money and  time
Code:  sy      ta    ge   mr

S3:  buy  good  stuff  only
Code:  kw   bo    rd    fp

S4:  only  work  and  money
Code:  ta   fp   mr   ux

On comparing the words & their respective codes from S1, S2, S3 & S4 we get code of 'invest time to work' is 'ux ge nj sy'