coding & decoding [6-Times]

→ Letter - Letter coding

→ Letter - Number coding

→ Statement - coding

→ words coding

Type 1:- letter-letter coding:-

DELHI is coded as EFMIJ, what is the code for _'PUNE'_.

$$
\begin{array}{c}
\overset{4\ 5\ 12\ 8\ 9}{DELHI} \\[4pt]
\underset{5\ 6\ 13\ 9\ 10}{EFMIJ}
\end{array}
$$

$$(+1, +1, +1, - - -)$$

PUNE

?

QVOF

$$(+1, +1, +1, +1)$$

2) $\overset{1}{A}C\overset{2}{G} \rightarrow BEH$ (+1,+2,+3--)

GATE => ? HCWI

3) TABLE $\longrightarrow$ ATBEL

chair $\rightarrow$? hcari

4) $\overset{18}{D}\overset{17}{rink} \rightarrow eqgml$

water $\rightarrow$? xzUd

(+1,-1,+1,-1,+1,-1---)

5) MONKEY — x DIMNL
   25   24
      -1

TIGER $\rightarrow$?

TIGER   D F H S
   -1   -1
      -1   -1
         -1

01. In a certain code, AMCF is written as EQGJ and NKUF is written as ROYJ. How will DHLP be written in the code? **(GATE - 2018)**

(a) RSTN

(b) TLPH

(c) HLPT

(d) XSVR

$(+4, +4, +4, +4)$

02. If IMHO = JNIP; IDK = JEL: and SO = TP, then IDC = _____. **(GATE - 2019)**

JC-D

(a) JDC

(b) JCD

(c) JDE

(d) JED

$(+1, +1, +1)$

03. In certain code, TOGETHER is written as RQEGRJCT. In the same code PAROLE will be written as?

(a) NCPQJG

(b) NCQPJG

(c) RCPQJK

(d) RCTQNG

04. In certain language, CHAMPION is coded as HCMAIPNO, how is NEGATIVE coded in that code?

(a) ENAGITEV

(b) NEAGVEIT

(c) MGAETVIE

(d) EGAITEVN

Type:- letter - Number coding,

Q)

GATE → 7-1-20-5⁻

IGS → ?9-5-19

Q) PSU → 15-17-18

BSNL → 1-17-11-8
2

$(-1, -2, -3, --)$

Q] BOOK = 43 $(2+15+15+11)$

PEN = ?

16+5+14   (35)

Q) (BOOK⁴³, PEN³⁵) = 8

   PEN - NIB = 2

   35 - 25 = 10 ✓

P) BOOK = 172   43×4 = 172

   PEN = 105 (35×3)

   INK = ?, 34×3 ⇒ 102

   [Sum] × no of letters
   _____

Q) AT = 20
   1-20

   BAT = 40
   2.1-20

   CAT = 60
   3-1-20

   RAT = ?
   18-1-20   360

                        2 out -

                        (30-3=27)

P) BANANA ⇒ 27   ?
   2 14   14

   15 15 5
   MOTORE ⇒ 16 (∵ 51-35=16)
   13 20 18

   15 5
   LOFGR ⇒ ?
   12 6 18

   36 - 20 = 16 ✓

17. If E = 10; J = 20; O = 30; and T = 40, what will be
    P + E + S + T?   (GATE - 2019)

    (a) 120

    (b) 164

    (c) 82

    (d) 51

Type 3:-

Statement coding:

In code language

     White ⟶ Black

     Black ⟶ Red

     Red ⟶ pink

     Pink → green

     green − yellow.

In that language, what colour of Blood ?

Blood
(Red) ⟶ pink

09. If ROOM is called BED, BED is called WINDOW, WINDOW is called FLOWER and FLOWER is called COOLER, on what would a man sleep?
    (a) WINDOW
    (b) BED
    (c) FLOWER
    (d) COOLER

10. If SAND is called AIR, AIR is called PLATEAU, PLATEAU is called WELL, WELL is called ISLAND and ISLAND is called SKY, then from where will a woman draw water?
    (a) WELL
    (b) ISLAND
    (c) SKY
    (d) AIR

11. 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?
    (a) SKY
    (b) AIR
    (c) WATER
    (d) SEA

Qe 4:- words coding :-

" They (are) Fools" ⟶ plane (is) Risky.

we (are) (wise) ⟶ Train (is) (Fast)

(wise) never fools ⟶ (Fast) always Risky.".

Train ⟶? we

wise ⟶ ? Fast

12. In a certain code, 'nee tim see' means 'how are you'; 'ble nee see' means 'where are you', what is code for 'where'?

(a) nee

(b) tim

(c) see

(d) ble

13. In certain code language, '851' means 'good sweet fruit', '783' means 'good red rose' and '341' means 'rose and fruit'. Which of the following digit stands for 'sweet' in that language?
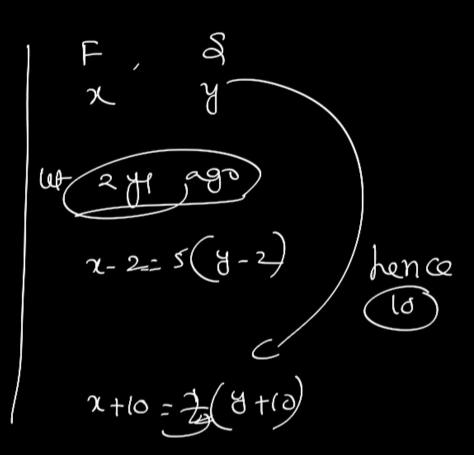
(a) 8

(b) 5

(c) 1

(d) 3

Problems on Ages

when ages Ratio is given => $A : B = 7 : 5$

$7x, 5y$

Ratio not given		S M R
F	S	$5 : 7 : 8$
$\downarrow$	$\downarrow$	$5y$ $7x$ $8x$
x	y	

THE PRESENT AGES RATIO OF P AND Q IS 5:7..

THE AGES DIFFFERENCE BETWEEN Q'S PRESENT AGE

 AND P'S AGE AFTER 6 YRARS WILL BE 2.

FIND SUM OF THEIR PRESENT AGES?

P:Q = 5 : 7

P = 5X

Q=7X

 Q 'S PRESENT - [P + 6] = 2

 7X --- [5X + 6] = 2

 7X ---5X---6 = 2

  2X = 8

 X= 4

SUM OF THEIR PRESENT = P + Q = 12X

12X4

48

Ratio is given $\Rightarrow$ A : B = 5 : 7

$5x, 7x$

Ratio not given

$\downarrow$

F, S

$\downarrow$ $\downarrow$

x   y

F   S

x   y

let $\underbrace{2 \text{ yr ago}}$

$x - 2 = 5(y - 2)$

hence

10

$x + 10 = \dfrac{7}{2}(y + 10)$

01. A person was asked to state his age in years. His reply was, "Take my age three years hence, multiply it by 3 and then subtract three times my age three years ago and you will know how old I am. What was the age of the person (years)?

(a) 18   (b) 20   (c) 24   (d) 32

$$3(x+3) - 3(x-3) = x$$

$$3x + 9 - 3x + 9 = x$$

$$x = 18$$