

# **GATE**

## ***ALL BRANCHES***



**General Aptitude**

**Analytical Reasoning**

**Lecture No.- 02**



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# Recap of Previous Lecture



Topic

Blood Relation





# Topics to be Covered



**Topic-1**

Coding Decoding ✓

**Topic-2**

Direction sense ✓



# [MCQ]

#Q. Direction:

$X+Y$  means X is the father of Y,

$X-Y$  means X is the wife of Y,

✓  $X \times Y$  means X is the brother of Y,

✗  $X \div Y$  means X is the daughter of Y.

Assignment

In  $A \times B \div C$ , which of the following statement is true?

**A**

A is father of C

**B**

A is brother of C

**C**

A is uncle of C

✓ **D**

A is son of C



## [MCQ]



#Q. Rohit said to Mohit, "The boy playing basket ball is younger brother of the two brothers of the daughter of my father's wife". How is the boy playing basket ball related to Rohit?

Assignment

my mother

my sister

**A**

Brother-in-law

**B**

Nephew

**C**

Cousin

**D**

Brother

[MCQ]



#Q. Introducing Swapna, Madhavi said, "She is the only daughter of my father's only daughter". How is Madhavi related to Swapna?

me

Assignment

me

Mother

A

Niece

B

Aunt

C

Cousin

D

None of these



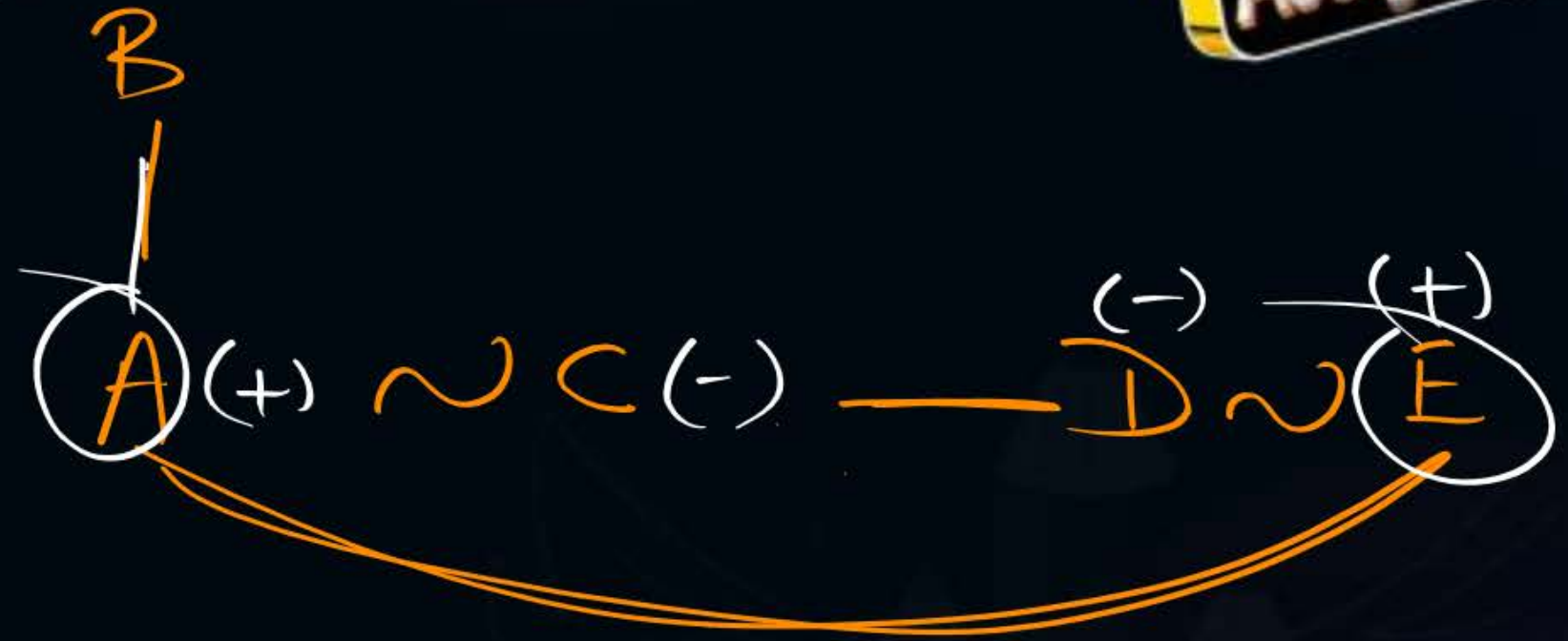
# [MCQ]



#Q. A, the son of B was married to C, whose sister D was married to E, the brother of A. How is D related to B?

Assignment

- A** Sister
- B** Cousin
- C** Sister-in-law
- D** Daughter-in-law



# Coding & Decoding

- ALPHABETICAL / LETTER
- NUMBER
- SUBSTITUTION
- MIXED

20  
—  
7

9  
—  
18

27  
—  
20  
7

1

A

26

27  
—  
9  
18

5

E

22

26

Z

1

13

M

14

14

N

13





[MCQ]



#Q. In a certain code SOCIAL is written as TQFMFR, then how you will code DIMPLE?

+1 +2 +3 +4 +5 - - -

Word

Code

S O C I A L  
+1 +2 +3 +4 +5 +6

T Q F M F R

D I M P L E → E K P T Q K

- A** EKPTQK
- B** EKPQPJ
- C** EKPSPJ
- D** EKPSOH

[MCQ]



#Q. If according to a certain code, PAINTER is written as 3528617, then  
TANRPEI is coded as?

Word  
P A I N T E R

Code  
3 5 2 8 6 1 7

TAN RPEI → 6 5 8 7 3 1 2

**A** 6587312

**B** 6583721

**C** 9385472

**D** 9385427



[MCQ]



#Q. In a certain code GIGANTIC is written as GIGTANCI. How is MIRACLES written in that code?

GIGANTIC — GIGTANCI

MIRACLES → RIMLACSE

**A** RIMLASCE

**B** RIMLACSE

**C** RMLIASCE

**D** RIMLSCAE

[MCQ]



#Q. In a certain code MAN is written as SANM and WORD is written as SORDW.  
How would SALE be written in that code?



- A** SEALS
- B** LESAS
- C** LEASS
- D** SALES



[MCQ]



#Q. If CURE is written as BTQD. How will MAIL be written in that code?

**A** LZGS

**B** LZKH

**C** LZHK

**D** LYHK

-1 +1 +1 -1  
CURE  $\Rightarrow$  BTQD

MAIL  $\Rightarrow$  LZHK

[MCQ]



#Q. If FUN is written as B3C7B7 which word is written as B2C3B7?

**A**

PIN

**B**

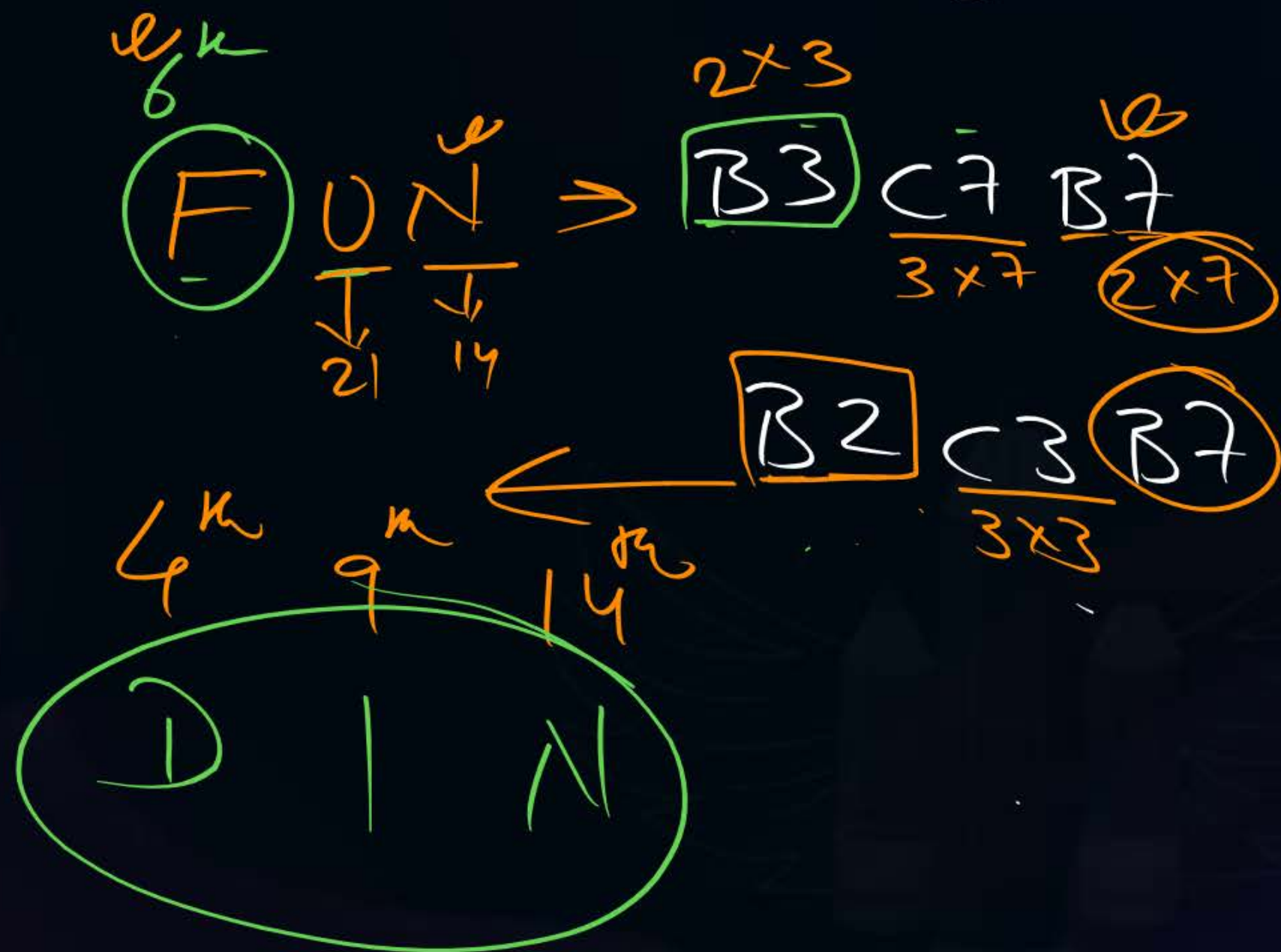
RUN

**C**

DIN

**D**

SIN





[MCQ]



#Q. If in a certain code TWENTY is written as 863985 and ELEVEN is written as 323039, how is TWELVE written in that code?

- A** 863203
- B** 823230
- C** 823032
- D** 863903

TWENTY → 8 6 3 9 8 5

ELEVEN → 3 2 3 0 3 9

TWELVE → 8 6 3 2 0 3

[MCQ]



#Q. If in a certain language PRIVATE is coded as 1234567 and RISK is coded as 2398, how is RIVETS coded in that language?

Assignment

- A** 687543
- B** 496321
- C** 246598
- D** 234769



## [MCQ]



#Q. If water is called food, food is called is tree, tree is called sky, sky is called wall, on which of the following grows a fruit?

**A**

Sky

**B**

Tree

**C**

Water

**D**

Food



## [MCQ]



#Q. 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** Sea
- B** Water
- C** Air
- D** Sky





[MCQ]



#Q. In a certain code language '389' means 'run very fast' '964' means 'come back fast' and '487' means 'run and come'. Which digit in the language means 'come'?

A

9

B

8

C

7

D

4

Fast  $\rightarrow$  9

Come  $\rightarrow$  4

back  $\rightarrow$  6

Run  $\rightarrow$  8

Very  $\rightarrow$  3

Run Very Fast  $\rightarrow$  389

Come back Fast  $\rightarrow$  964

Run and Come  $\rightarrow$  487

And  $\rightarrow$  7



[MCQ]



#Q. If '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' is that code language?

- A** min
- B** baj
- C** nop
- D** None of these

is  $\Rightarrow$  mot  
singing  $\Rightarrow$  tip  
dancing  $\Rightarrow$  baj  
~~Singing~~ is appreciable  
Dancing is good  $\Rightarrow$  col tip mot  
mot baj min  
~~Singing~~ and dancing  $\Rightarrow$  tip nop baj



[MCQ]



#Q. If light means red, red means green, green means white, white means yellow. What is the colour of blood?

Assignment

- A** light
- B** blue
- C** red
- D** yellow

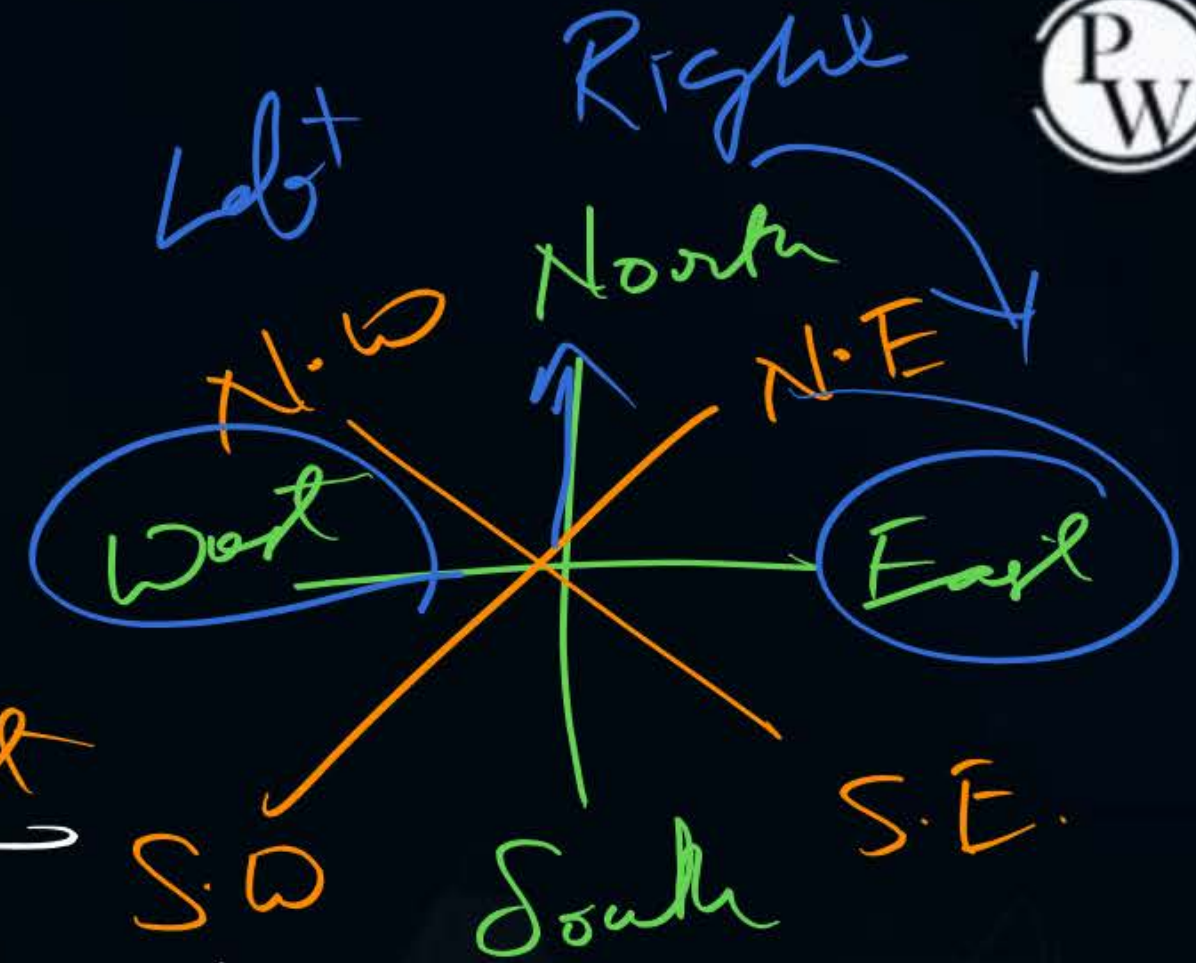
# Direction

Vertical

North South

East West

Horizontal





# Direction

~~Distance~~

Displacement



Left



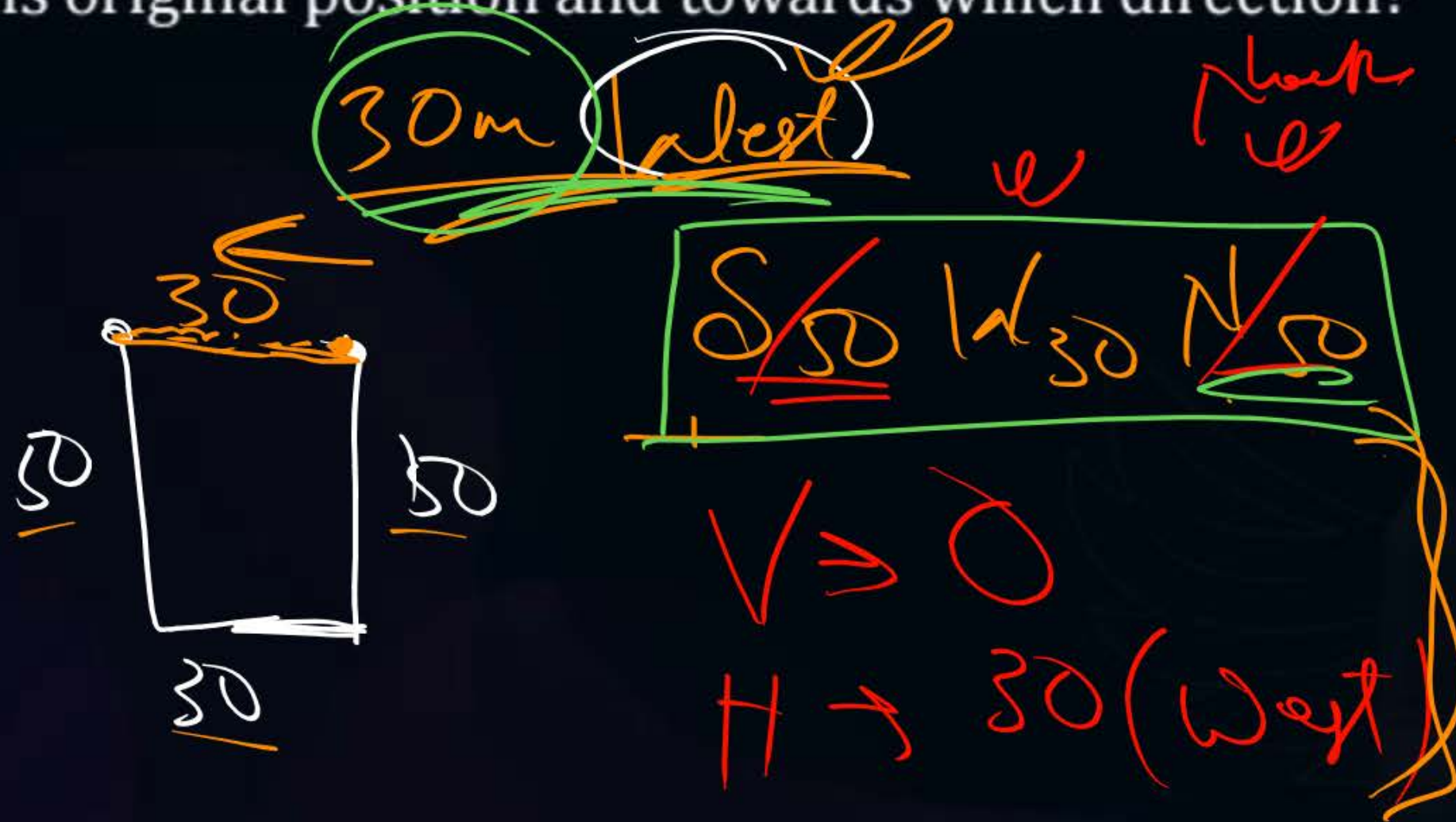


[MCQ]



#Q. Facing towards south Suresh walked 50 mts. He then turned to his right and walked 30 mts. He again turned right and walked 50 mts. How far was he from his original position and towards which direction?

$$= \sqrt{H^2 + V^2} = \sqrt{30^2 + 0^2}$$



- 
- ① Vertical Distance
  - ② Horizontal Distance
  - ③ Facing Direction
  - ④ at last Direction
  - ⑤ Distance from origin



[MCQ]



#Q. Mahesh started walking towards North. After walking 30 metres, he turned towards left and walked 40 metres. He then turned left and walked 50 metres. How far is he from his original position?

$$\sqrt{H^2 + V^2}$$



$$\begin{aligned} &= \sqrt{2000} \\ &= \sqrt{4 \times 5 \times 100} \\ &= 2 \times 10 \sqrt{5} = 20\sqrt{5} \text{ m} \end{aligned}$$

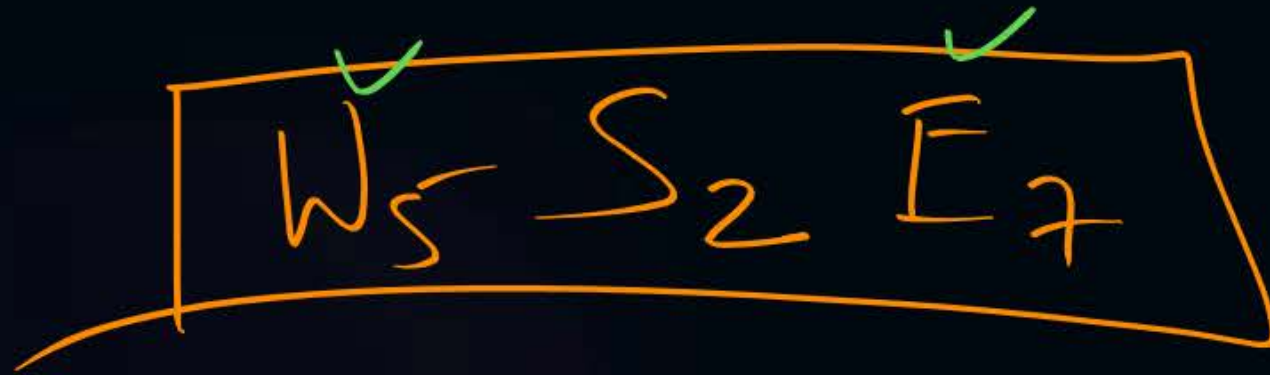
$$\begin{aligned} V &\rightarrow 20 \text{ (South)} \\ H &\rightarrow 40 \text{ (West)} \end{aligned}$$

$$= \sqrt{40^2 + 20^2} = \sqrt{1600 + 400}$$

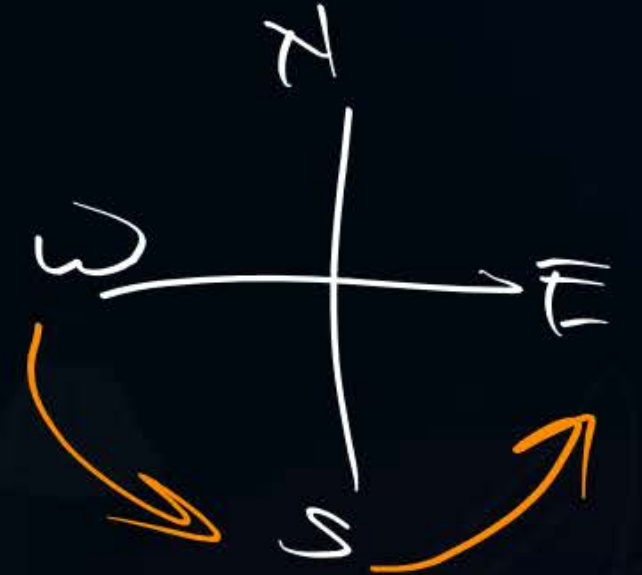
## [MCQ]



#Q. Mohit started from point X and walked straight 5 km West, then turned left and walked straight 2 km and again turned left and walked straight 7 km. In which direction is he from the point X?



H  $\Rightarrow$  2 (East)  
V  $\Rightarrow$  2 (South)



South East



## [MCQ]



#Q. A is standing at P. He walks 10 meters towards the south; then he walks 20 meters towards the west; then he walks 10 meters towards the south; then he walks 20 meters towards the North and reaches Q. What is the straight distance between P and Q in meters?

Assignment

## [MCQ]



#Q. Sumit walks 8 km east, turns South-West and walks another 8km. He again takes a turn towards North-West and walks another 8km. In which direction from starting point is he standing now?

Assignment



[MCQ]



#Q. A walks 10 metres towards East and then 10 metres to his right, then every time turning to his left, he walks 5.15 and 15 metres respectively. How far is he now from his starting point?

*Assignment*

- A** 16.55
- B** 6.965
- C** 15.95
- D** 15.0

[MCQ]



#Q. A man is facing North-West. He turns  $90^\circ$  in the clock wise direction, then  $135^\circ$  in the anticlockwise direction which direction is he facing now?

*Assignment*

- A** North
- B** South-east
- C** West
- D** South-west



**[MCQ]**

#Q. One day, Ravi left home and cycled 10 km Southwards, turned right and cycled 5 km and turned right and cycled 10 km and turned left and cycled 10 km. How many kilometers will he have to cycle to reach his home straight?

*Assignment*

- A** 5 km
- B** 15 km
- C** 12 km
- D** None of these

[MCQ]



#Q. P, Q, R and S are playing a game of carom. P,R and S,Q are partners. S is to the right of R, who is facing West. Then, Q is facing?

Assignment

- A** North
- B** South
- C** East
- D** Can't be determined



## [MCQ]



#Q. One evening before sunset, two friends Sumit and Mohit were talking to each other face to face. If Mohit's shadow was exactly to his right side, which directions was Sumit facing?

*Assignment*

- A** East
- B** North
- C** West
- D** South

## [MCQ]



#Q. After walking 6 km, I turned right and covered a distance of 2 km, then turned left and covered a distance of 10 km. In the end, I was moving towards the North. From which direction did I start my journey?

*Assignment*

- A** North
- B** North-west
- C** East
- D** None of these



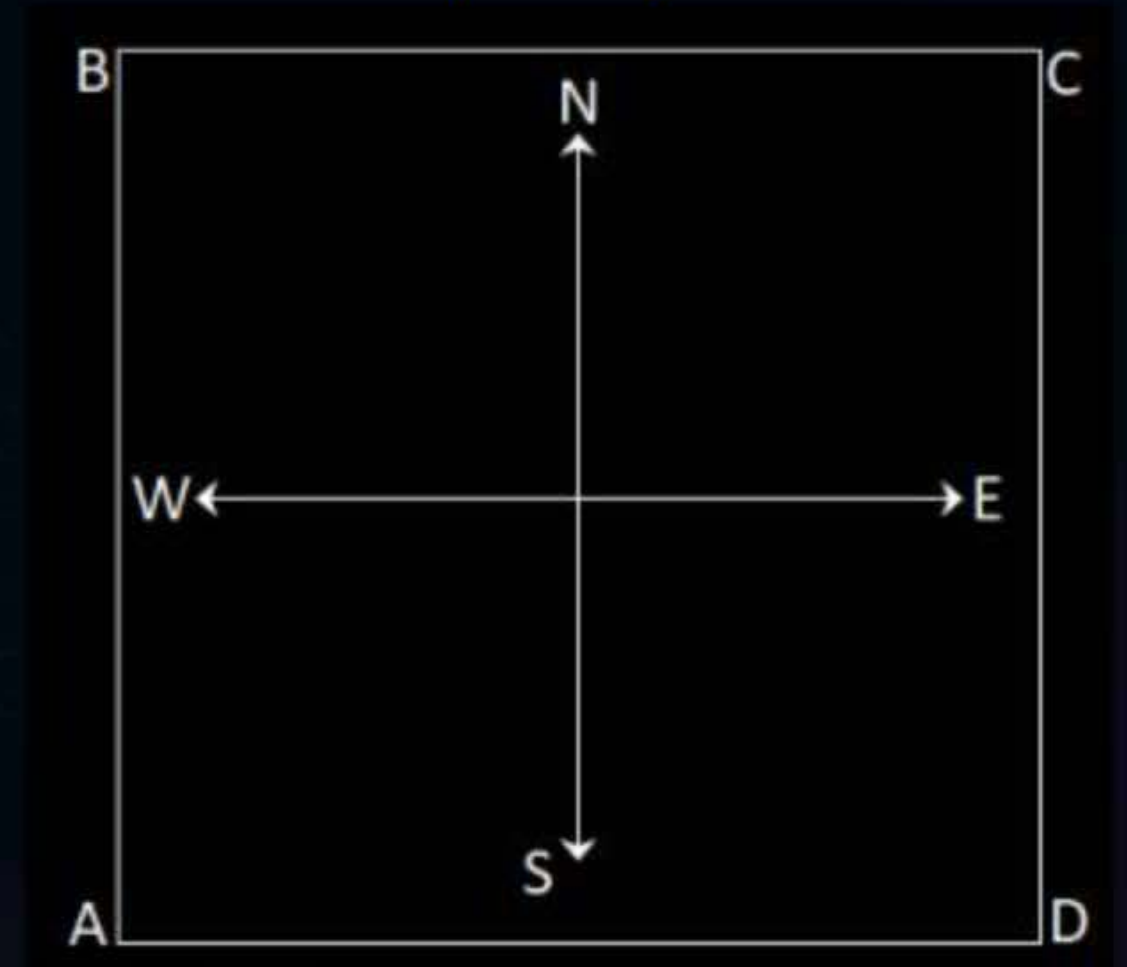
## [MCQ]



#Q. A, B, C and D are standing on four corners of a square piece of plot as shown in the given figure. From the original position, D starts crossing the field diagonally. After walking half the distance he turns right, walks some distance and turns left. Which direction is D facing now?

*Assignment*

- A** South-east
- B** North-west
- C** South-west
- D** South



## [MCQ]



#Q. Vikas starts walking straight towards east. After walking 75 meters, he turns to the left and walks 25 meters straight. Again, he turns to left walks a distance of 40 meters straight, again he turns to left and walks a distance of 25 meters. How far is he from the starting point?

Assignment





## 2 mins Summary



**Topic**

Coding Decoding & Directions ✓



**THANK - YOU**