

Logical-Based Diagram Related Ones (Elimination-Based)

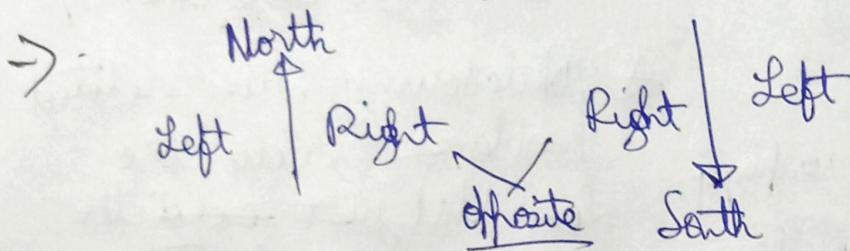
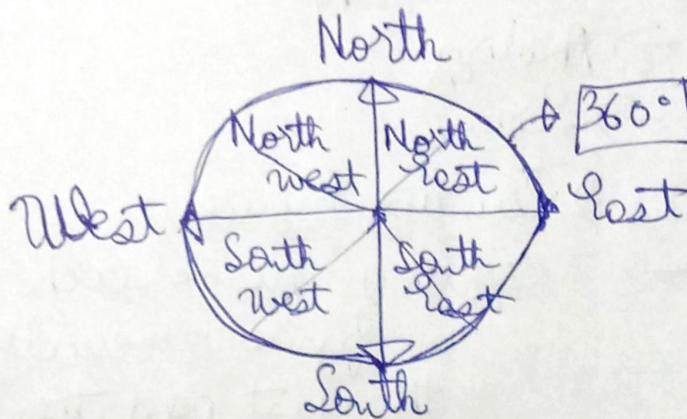
- Classification → Pattern Completion
 - Cubes & Dices → Analogy
 - Mirror Images → Series
 - Water Images → Coding/Decoding
 - Embedded Images
 - Figure Matrix
 - Paper Folding
 - Paper Cutting
 - Rule/Image Grouping
 - Shape Construction
 - Image Analysis
 - Dot Situation
- * Always name each figure numerically & then just odd them up.
- * While solving sum-related problems, do the sum but just add the value near to (+) by $\frac{1}{2}$.
- ↳ Triangles
 - ↳ Squares
 - ↳ Rectangles

Non-Diagram Based

- Blood Relations ✓
- Coding-Decoding ✓
- Clocks & Calendars
- Dices & Cubes ✓
- Seating Arrangement ✓
- Syllogism ✓

Seating Arrangement (Ordering & Ranking)

Based on Directions



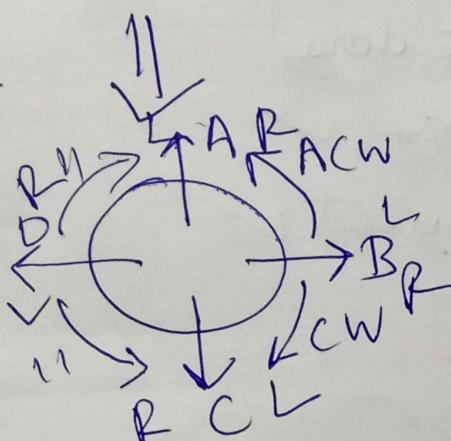
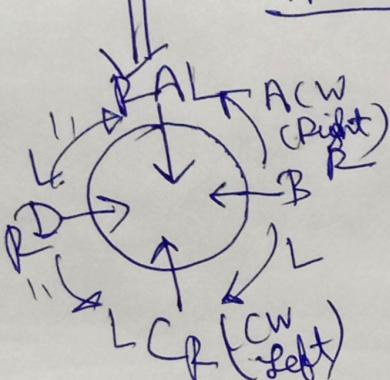
→ Types of Arrangements (Frames) :-

- Linear (Single / Double Row) } Most
- Circular Table } Common
- Inwards Outwards

Right Anti CW Right CW

Left CW Left A CW

Opposite

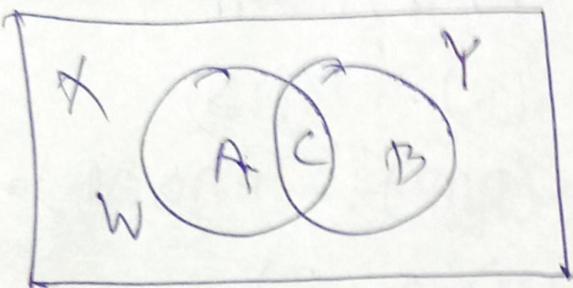


1.1 P. 1.1 Definition

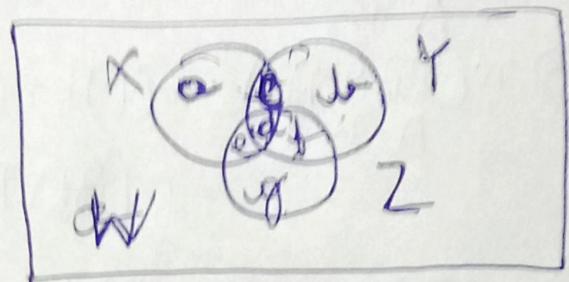
- # Set-theory & Venn Diagram \rightarrow D (Disjoint Sets)
- $\rightarrow n(P \cup Q) = n(P) + n(Q) - n(P \cap Q)$ [Overlapping Sets]
- $\rightarrow n(P \cup Q \cup R) = n(P) + n(Q) + n(R) - n(P \cap Q) - n(Q \cap R) - n(R \cap P) + n(P \cap Q \cap R)$
- $\rightarrow n(A) = n(A \cup B) + n(A \cap B) - n(B)$
- $\rightarrow n(B) = n(A \cup B) + n(A \cap B) - n(A)$
- $\rightarrow n(A \cap B) = n(A) + n(B) - n(A \cup B)$
- $\rightarrow n(U) = n(A) + n(B) - n(A \cap B) + n((A \cup B)^c)$
- $\rightarrow n((A \cup B)^c) = n(A \cap B) + n(U) - n(A) - n(B)$
- $\rightarrow n(A \cup B) = n(A - B) + n(B - A) + n(A \cap B)$
- $\rightarrow n(A - B) = n(A \cup B) - n(B)$
- $\rightarrow n(A^c) = n(U) - n(A)$
- $\rightarrow n(B^c) = n(U) - n(B)$
- $\rightarrow n(A + B) =$

VENN DIAGRAM

2 elements



3 elements



$$\rightarrow n(X) = \cancel{A} + C \text{ (Only A)} = AC$$

$$\rightarrow n(Y) = B + \cancel{C} \text{ (Only B)} = BC$$

$$\rightarrow n(X \cap Y) = C \text{ (Either)}$$

$$\rightarrow n(X \cup Y) = \cancel{A} + B + C \text{ (Both)}$$

$$\rightarrow n(U) = n(X) + n(Y) + n(Z)$$

$$\quad \quad \quad \downarrow = \cancel{A} + B + C + W.$$

\rightarrow Only X
 \rightarrow Only Y
 \rightarrow X and Y not Z
 \rightarrow X and Z not Y
 \rightarrow Y and Z not X
 \rightarrow Only Z

\rightarrow No Elements
 OR $\Rightarrow \bullet (n)$
 AND $\Rightarrow (v)$

Seating Arrangement

\rightarrow Total No of Objects / Persons = Sum of Positions of the
 Boys / Girls
 Some Person from Both Sides (Left / Right - 1)
 If (Bottom)

\rightarrow Total No of Persons / Objects = No of Persons / Objects
 Before / After the Given Person in a Row + Position of the
 Some Person from the Other Side

[Logical Reasoning] (Diagram-Based & Non-Diagram Based)

I) Mirror Images :- (Left \leftrightarrow Right) Top = Bottom
Eg - APRIL \parallel L I R P A ($L|R \Rightarrow R|L$)

II) Water Images :- (Top \leftrightarrow Bottom), Left = Right
Eg - NUCLEAR \parallel U N C E A R \Rightarrow (T B) \Rightarrow (B T)

* Only Symmetrical Images Objects will remain same

III) Shape Construction :-

i) Polygon Formation :- Shape \rightarrow 1 + 2 + 3 \Rightarrow 1 2 3 Rectangle

ii) Shape Putting :- Square

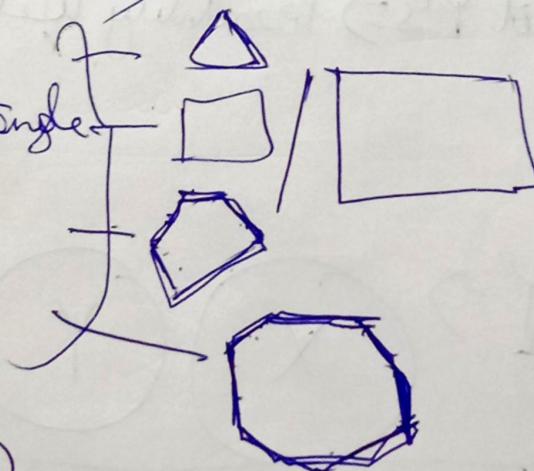
you have to construct a shape by merging a list of figures (2D & 3D) (1, 2, 3, 4, 5, 6)

→ Triangle

→ Square / Rectangle

→ Pentagon

→ Hexagon



[Aptitude]

↳ Arithmetic

↳ Logical (Puzzles & Diagrams & etc.)

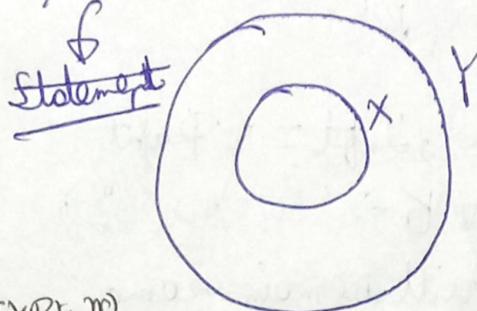
↳ Verbal (Vocabulary)

* Tip - Always try to eliminate options as much as you can while solving logical-based diagram related questions

Syllogism & Set Theory & Venn Diagram [CASES]

TYPE-I

(1) $\rightarrow \text{All } X\text{'s are } Y\text{'s} \Rightarrow \text{All } Y\text{'s are } X\text{'s}$



Conclusion :-

$\rightarrow \text{Some } Y\text{'s are } X$

$\rightarrow \text{Some } X\text{'s are } Y$

TYPE-II

(2) $\rightarrow \text{No } X\text{'s are } Y\text{'s} \Rightarrow$

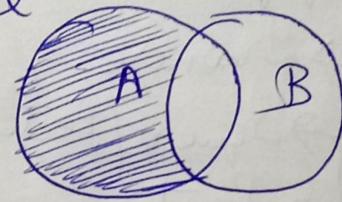


$\rightarrow \text{Some } X\text{'s are } Y\text{'s} \Rightarrow \text{Possibility Case}$



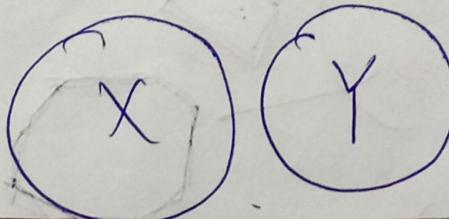
$\rightarrow \text{Some } X\text{'s are not } Y\text{'s} \Rightarrow \text{Possibility Case}$

(4)



(5)

$\rightarrow \text{No } X \text{ is } Y \Rightarrow$
No Y is X



Set-Theory Formulas (Venn Diagram)

$$\rightarrow n(P \cup Q) = n(P) + n(Q) - n(P \cap Q) \quad \text{PTO}$$

\rightarrow

Blood Relations

↳ General Blood Relation

↳ Indicated Blood Relation (Picture Person)

Post Generation

Brother | Mother | Uncle | Aunt

(♀)

Current Generation

You | Broth | Sist | wife | Husb (=)

(♂)

Son | Daughter | Nephew | Niece |
Cousin =

Future Generation

↳ | gd

↳ | ggd

* Maternal → Mother's
Side
* Paternal → Father's
Side

→ Male
→ Female

Seating Frame (contd.)

→ Linear Row :- -----

→ Double Row :- -----

Steps :- (B)

→ Count Total People &

Check Seating Frame

→ Solve individually &
then merge them together.

----- →

FORMULAS:-

→ Total = (Left + Right) - 1 /
Persons (Top + Bottom) - 1

→ No. of persons either to the
left/right of a person
 $\frac{L+R-1}{2}$

→ No. of Persons b/w 2 Persons
= $(P_1 - P_2) - 1$ [Persons same side] → P/L & L/R R/L & R/R

→ (+, -, ×, ÷) (+, -, ×, ÷)

Coding - Decoding & Number/Letter Series/Sequences

* Types:-

* *

→ ABCD (Alphabet Based) → Symbols

→ 1234 (Numerical Based) → Misc. Grouping

→ Common Logic } IMP
→ Observation }

* Know the Numerical Value of each Letter/Alphabet.

* * Types:-

→ Number Series

(4, 7, 12, 19)

Next Term

→ Letter/Alphabet Series

(A, E, I, M)

Missing Term

→ Alpha-Numeric Series

(A, D, G, J, M)

Wrong Term

→ Symbol

Correct Term

Clocks & Calendars

Day
Month
Year
Same
Diff
Ans

$$\text{Clock Angle} := \frac{11M - 30H \pm \theta}{2}$$

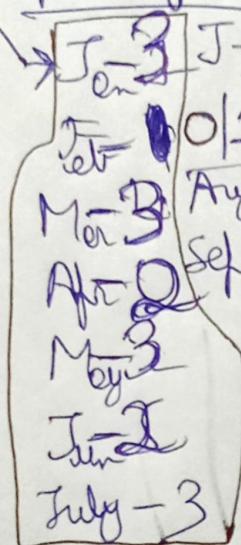
Till 180° .
 ≤ 180

$$\text{If } > 180^\circ, \theta = \theta - 360^\circ$$

Calendars

1500 + 5	↓
100 yrs - 5	
200 yrs - 3	
300 yrs - 1	
400 yrs - 0	

No. of odd Days



Do

S-1	Aug-3
H-2	Sep-2
F-3	Oct-3
W-4	Nov-2
F-5	Dec-3
F-6	
Sat-7	Do

Type-I

1 Jan 2012 Mon

Type-II

10 May 2013 Sun

Type-III

5 Jan 2001 Mon

Type-IV (Optional)

5 Jan 2007 Mon

(2001 - 2006) (Add
Odd
Days)

$$7 \sqrt{30} \\ 28 \\ 2 \\ 1$$

$$7 \sqrt{30} \\ 28 \\ 2 \\ 1 \\ (Odd \\ Days) \\ 213 = 210 \\ = 7$$

$$7 \sqrt{30} \\ 28 \\ 2 \\ 1 \\ 6$$