GRA

1 Ordinary — 52 weeks — 365 day — 1 + 1 odd day

1 Leap. — 366 days — 52 weeks + 2 odd day

for 100 years

24 leap, 76 ordinary

24 leap → 6 odd

76 ordinary → 6 odd

12 → 5 odd days

every 4th century is a leap year

⇒ 100 years → 5 odd

200 years → 2(5) = 10 ⇒ 3 odd days

300 years → 3[5] = 15 → 1 odd day

400 years → 4[5] + 1 = 21/3 → 0 odd days

→ Today is Saturday, what is the day of same date of today after 100 years

↳ Saturday + 5 ⇒ Thursday

→ Before 100 years

↳ Saturday − 5 ⇒ Monday

13 Aug 2022 → Saturday

0 - Sunday
1 - M
2 - T
3 - W
4 - Thu
5 - Fri
6 - Sat

2021 years + [1st Jan - 13th Aug]

2021 years
- 2000 → 0 odd days
- 21 → 5 Leap → 3 odd days
- 21 → 16 ordinary → 2 odd days

3 odd days + 2 odd days

5 odd days

J - 3
F - 0
M - 3
A - 2
M - 3
J - 4
July - 3
Aug - 6

8 + 14 = 22 → 1 odd day.

⇒ 5 + 1 ⇒ 6 odd days

6th March 2003 → Best date in the calendar history

2002 → 2000 → 0

2 years → 2 odd.

1 Jan → 6th March.

J → 3

F → 0

M — 6

9 → 2 odd

4 → Thursday

6th May 1972

1900 → 1 odd

71 years → 17 leap → 6 odd

54 → 5 odd

11 odd → 4 odd

7 odd 0

$\frac{54}{7}$

17 × 4 = 68

$\frac{71}{4}$ = 17

71 − 17 = 54

36

⇒

J → 3

F → 1

M → 3

A → 2

M → 6

15

1 odd

5 odd

Friday

7/4/1981

1980

1900 — 80

1 odd — 5 odd — 4 odd

2 odd

3 odd

Jan → 3
F → 0
M → 3
A → 0
6

9

2

Tues

10 Nov 1981

1900 — 80

3 odd

J — 3
F — 0
M — 3
A — 2
8

M — 3
Ju — 2
July — 3
Aug — 3
11

Sep — 2
Oct — 3
Nov — 2
Dec → 3
8

9
16
11
27

6 odd

9 odd

2 → Tuesday

~~C.P ——— +2~~

$(C.P)_{12} = (S.P)_{8}$

⇒ ~~8 ——— 1~~ $\frac{12-8}{8} \times 100$

$\frac{4}{8} \times 100 = 50\%$

Blood Relations:-

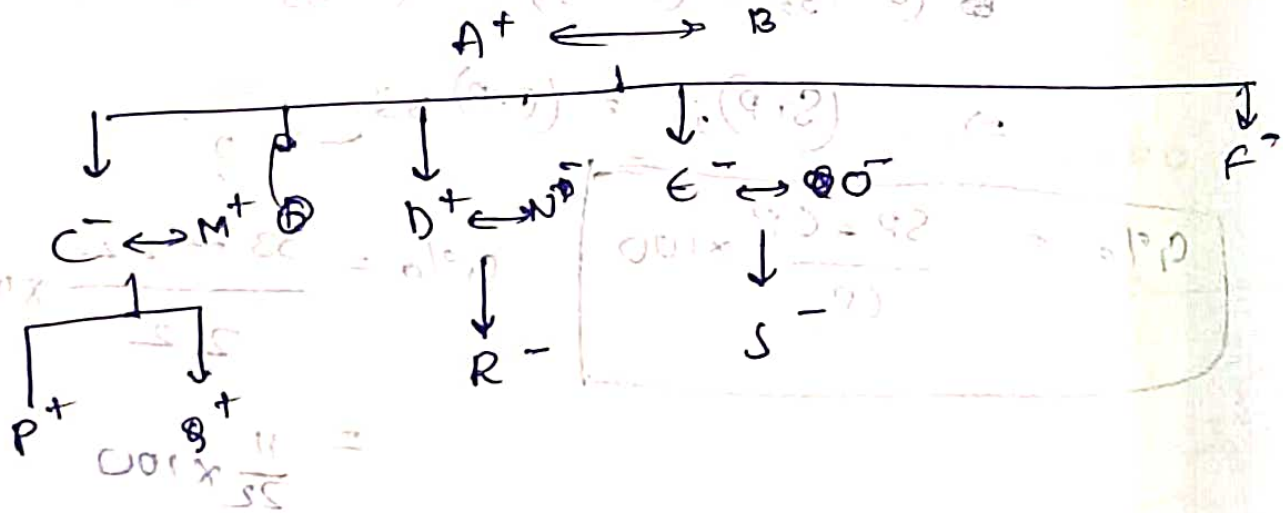
Male → A^+

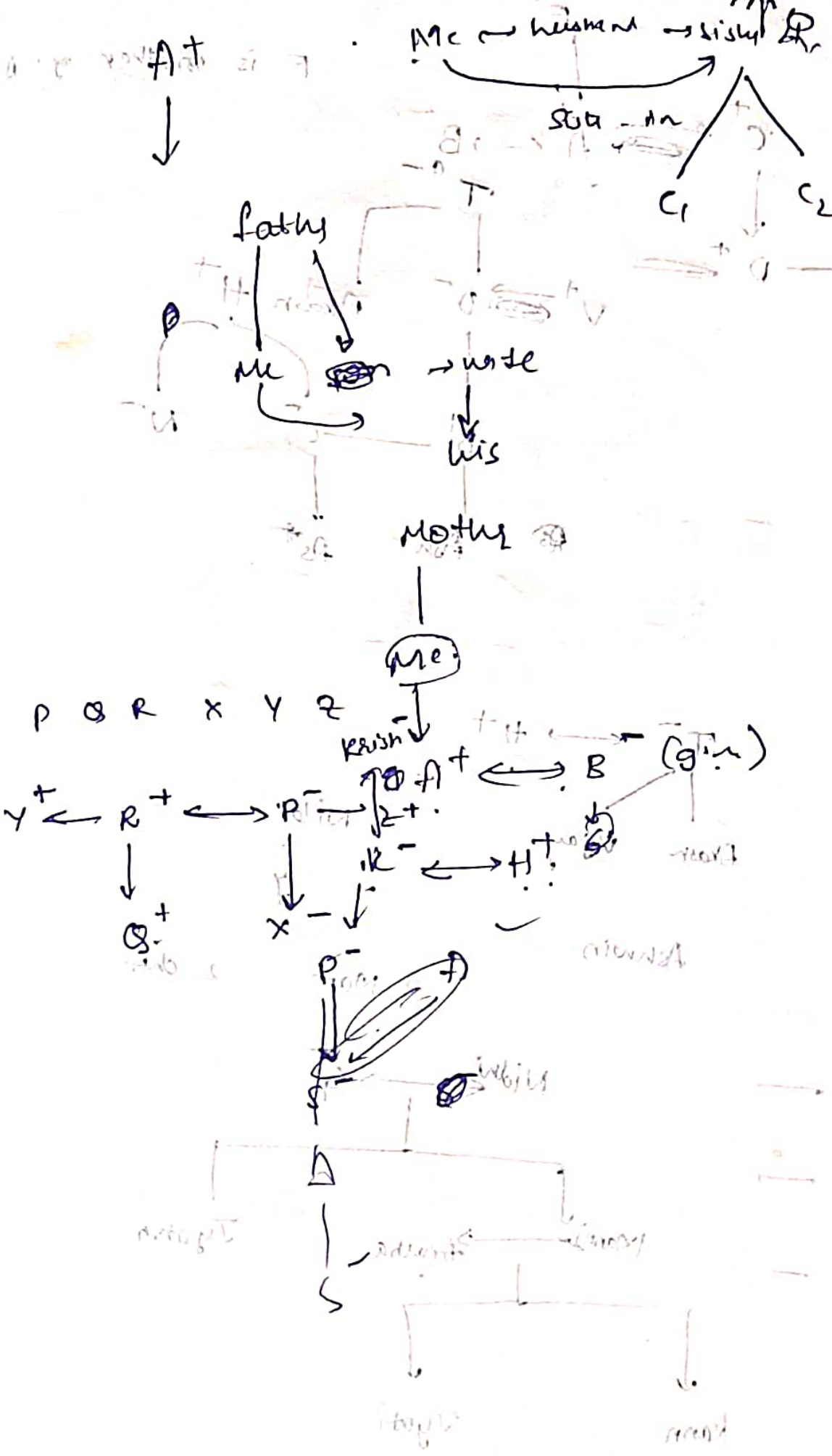
female → A^-

B → A^+ → A is brother of B

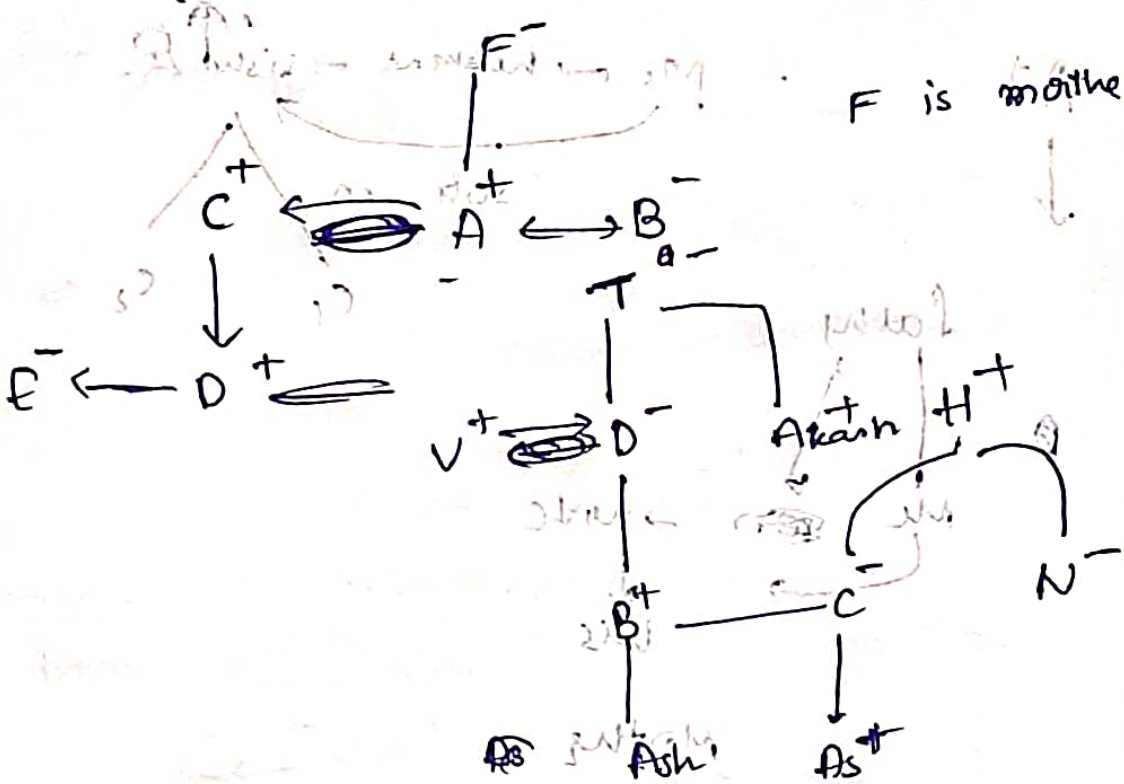
A^+ → A is father of B
↓
B

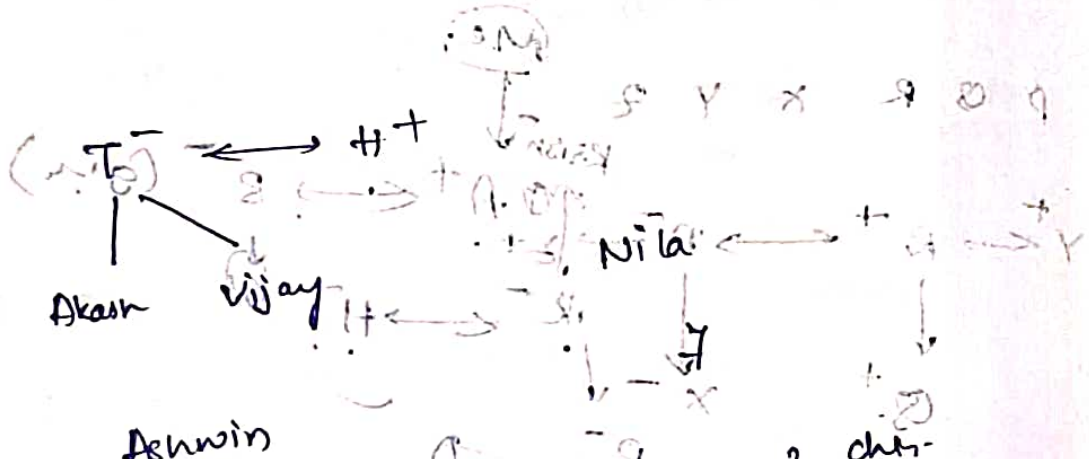
B^- ⟷ A^+ → couple

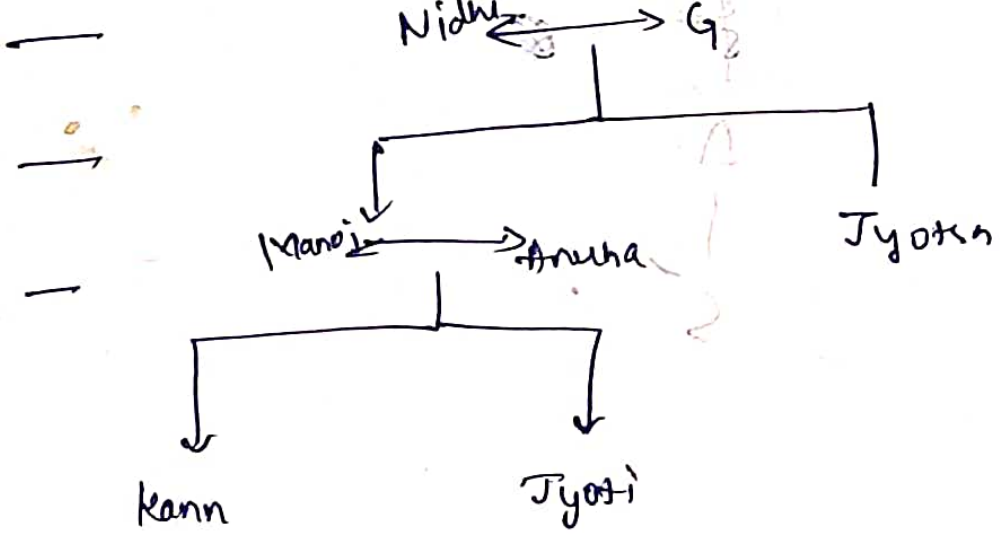


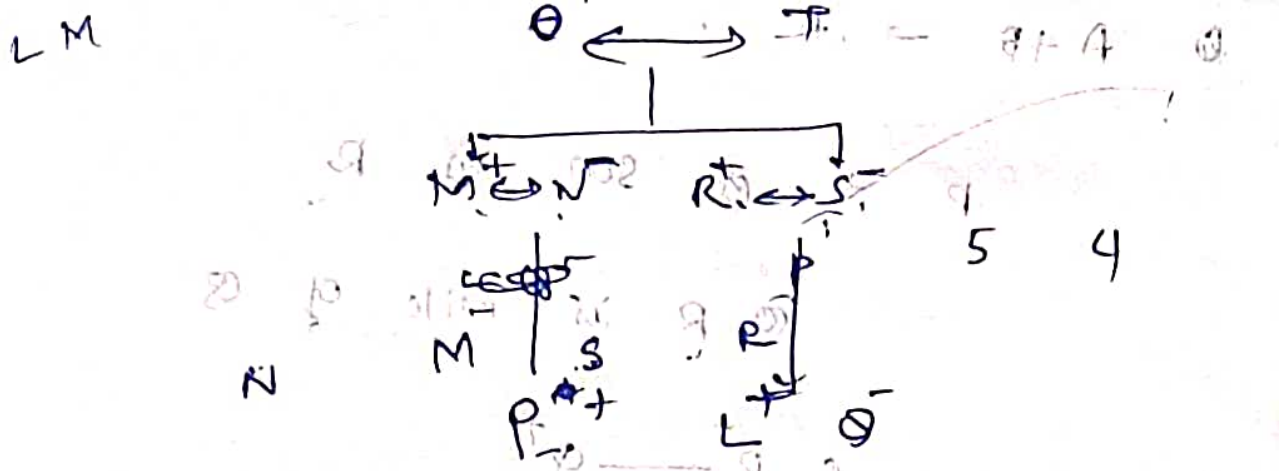

P Q R X Y Z
Rush
B
(Sink)

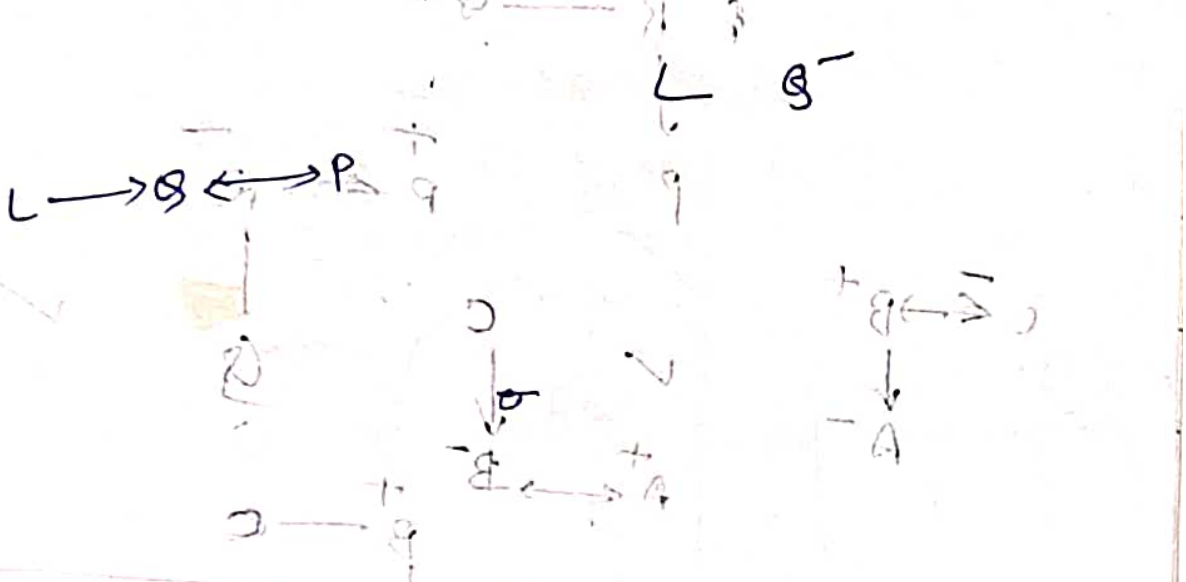
F is mother of A

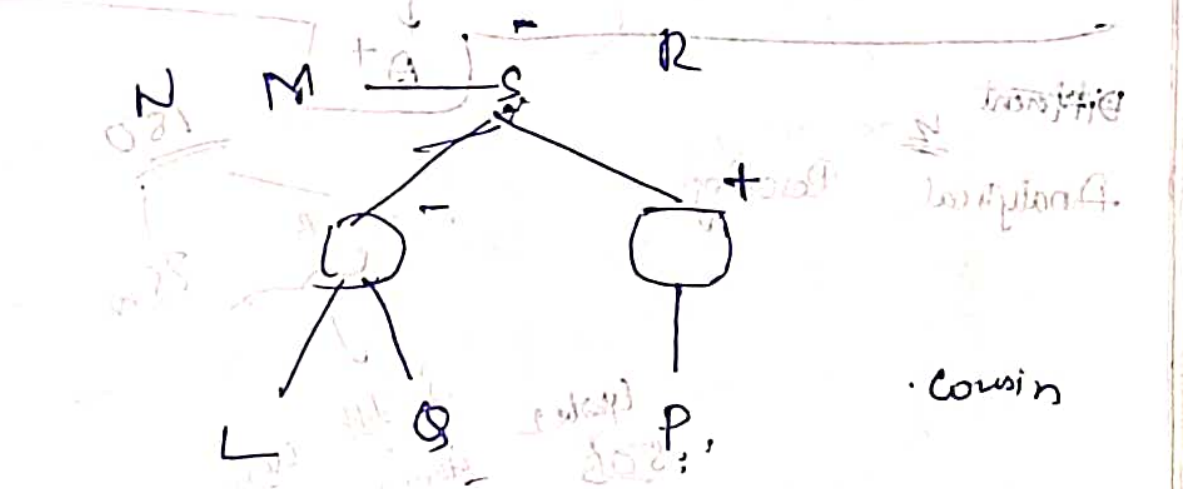


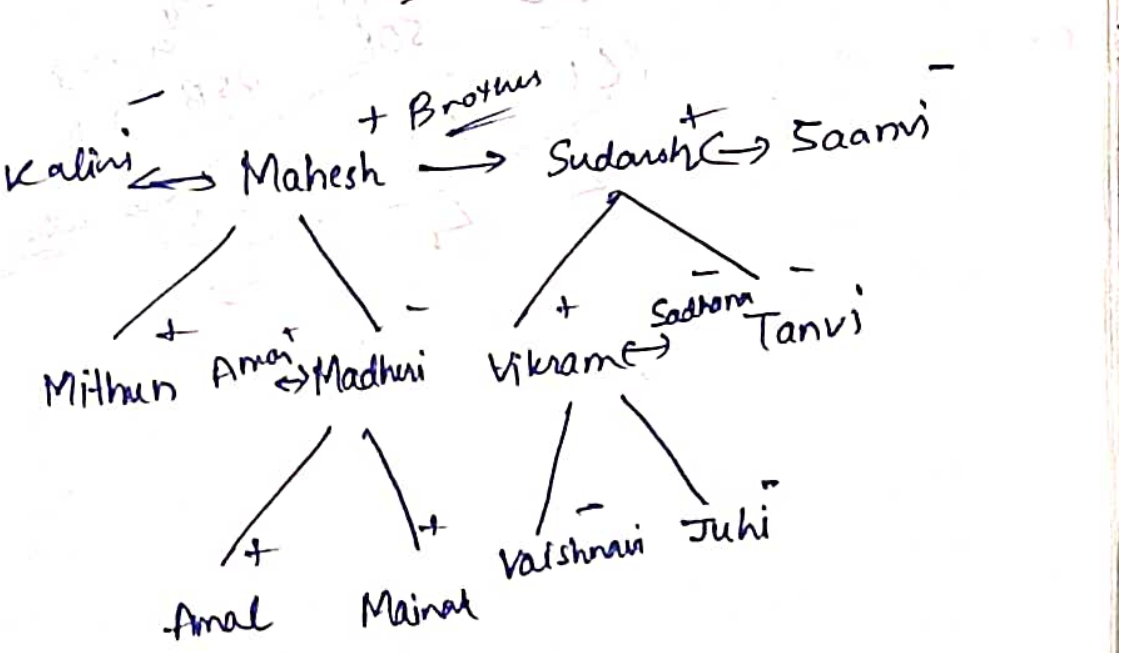


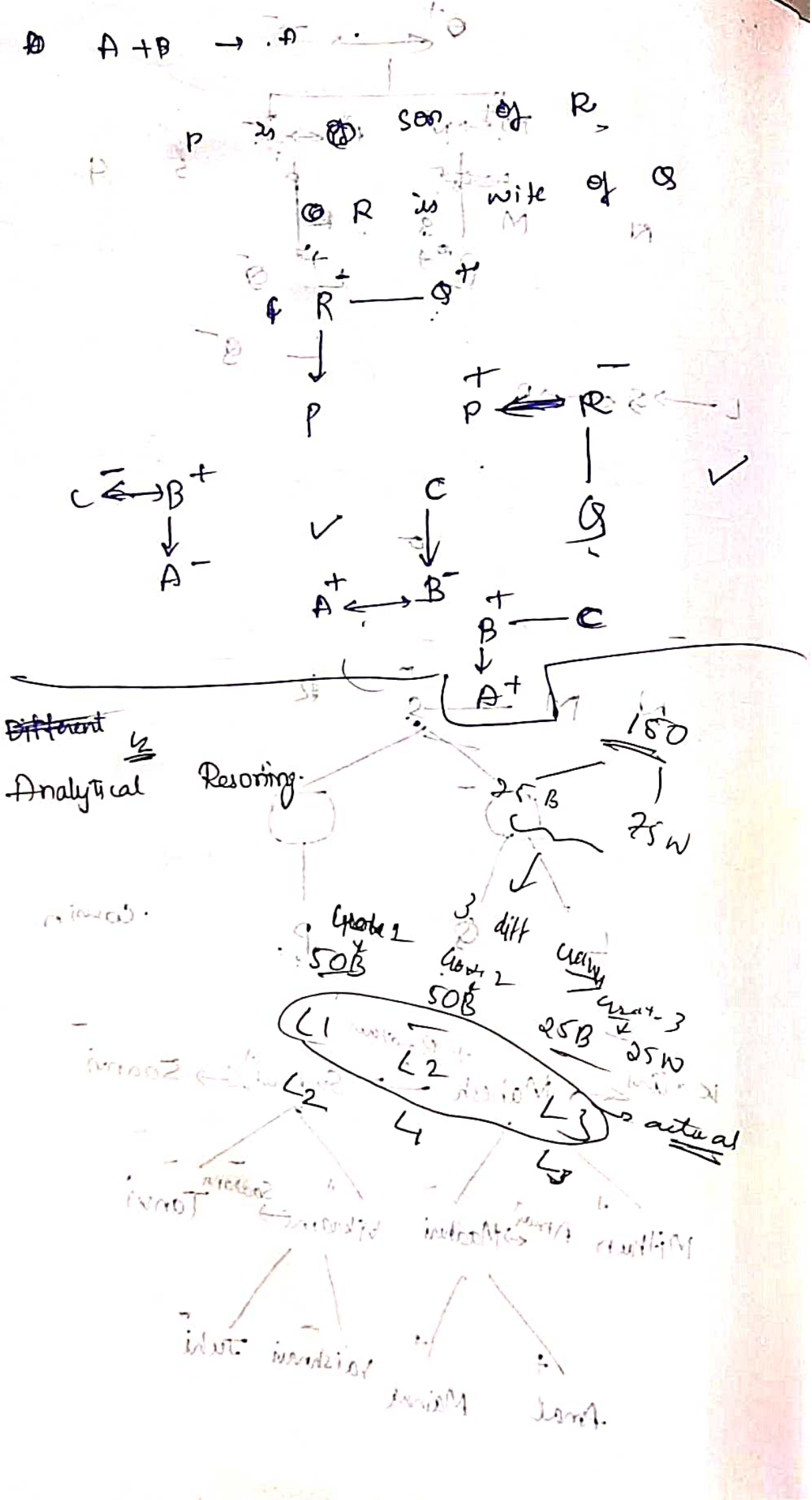









Kalini
Mahesh
Brothers
Sudarsh
Saanvi
Mithun
Amar
Madhuri
Vikram
Sadhana
Tanvi
Amal
Mainak
Vaishnavi
Juhi


A + B → A
P
R
Q
C
B
A
Different
Analytical
Reasoning
150
25 B
25 W
3 diff
50 B
50 B
25 B
25 W
L1
L2
L3
L4
actual

Analytical Reasoning.

A - Penta Solt

B Quark.

C Raymond

D Sunmet

E Trump & Gates

F ~~Gates~~

Uzen

	P	Q	R	S	T	U
Blue	X	X	X	F	X	X
Green	C	X	X	X	X	X
Pink	X	A	X	X	X	X
Yellow	X	X	D	X	X	X
Purple	X	X	X	X	X	E
Red	X	X	X	X	B	X

	Lucknow	Mumbai	Kolkata	Delhi	Pune
~~Pravin~~ Manish	X	X	X	X	Doctor
Ashish	X	X	Musician	X	X
Rahul	X	Artist	X	X	X
Kapil	Architect	X	X	X	X
Pravin	X	X	X	Engineer	X

Manish → Pune – Doctor

Ashish → Kolkata → Musician

Rahul – Mumbai – Artist

Kapil – Architect – Lucknow

Pravin – Delhi – Engineer

	Enginea	Teacha	Authra	Nurse	Doctar	Proffesy
Amarendra	X	X	✓	X	X	X
Sheela	X	X	X	X	X	✓
Kamini	✓	X	X	X	X	X
Priti	X	X	X	X	✓	X
Puram	X	✓	X	X	X	X
Rita	X	X	X	✓	X	X

Rita → Nurse

Kamini → Engr

Puram → Teach

Amarinda → Authr

Swati → Rita, Zen

A

B

P(Zen)

C

Swati

Zen

Rita

S^{q-}

$P(B)$

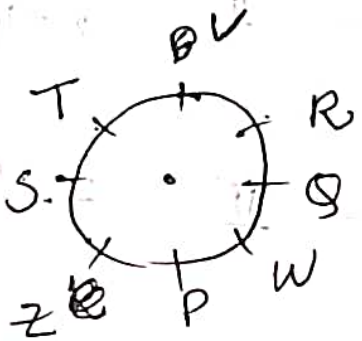
$R^-(B)$

T

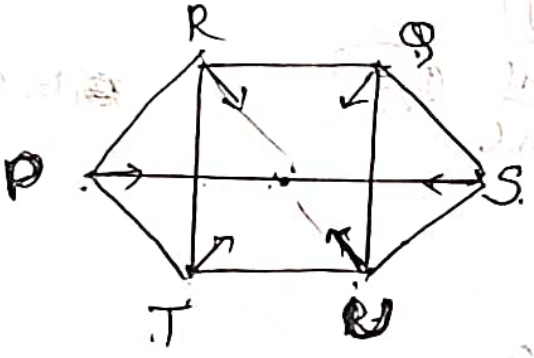
08/10/2022

→ Analytical Reasoning
→ Ranking & Sequencing → Seats
→ Blood Relations
→ Cubes, Cuboids & Dice
→ Coding Decoding
→ odd one out
→ Numbers & Letters — Series & Analogy.
→ Clocks & Calendars.
→ Syllogisms.
→ Logical connectives.

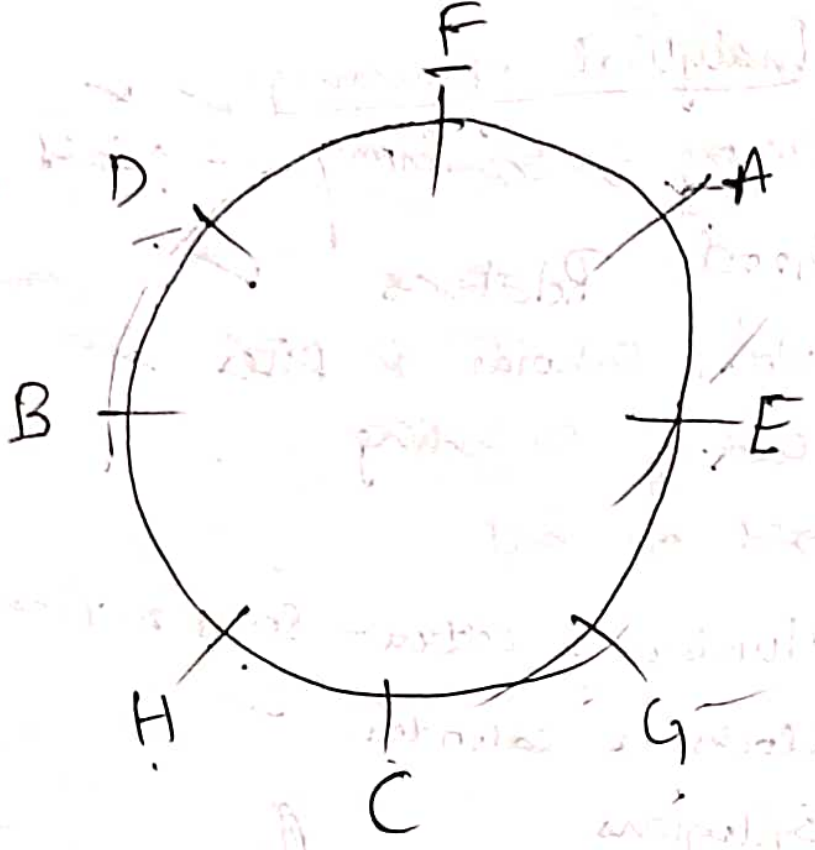
Seating Arrangements



R Q S



S
P
T K R



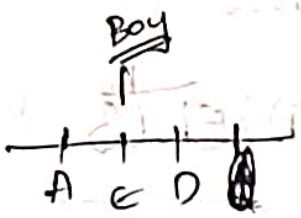
G
D

Third to

Rigu

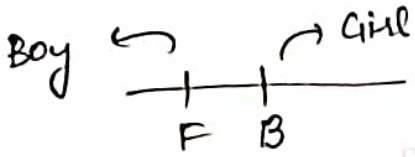
B F

D F

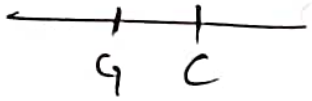


I : 2 → 14

C – Girl



II 2 – 14



III 2 – 4

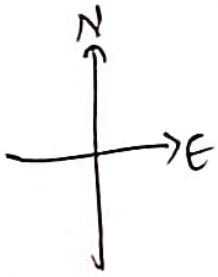
E → boy

C → Girl

B → Girl

D, E

A, B, C, D → 9 Mts.



Fiat.

Am / Bed

Maruti.

Am. / Bed

F Fargo.

C Cadillac

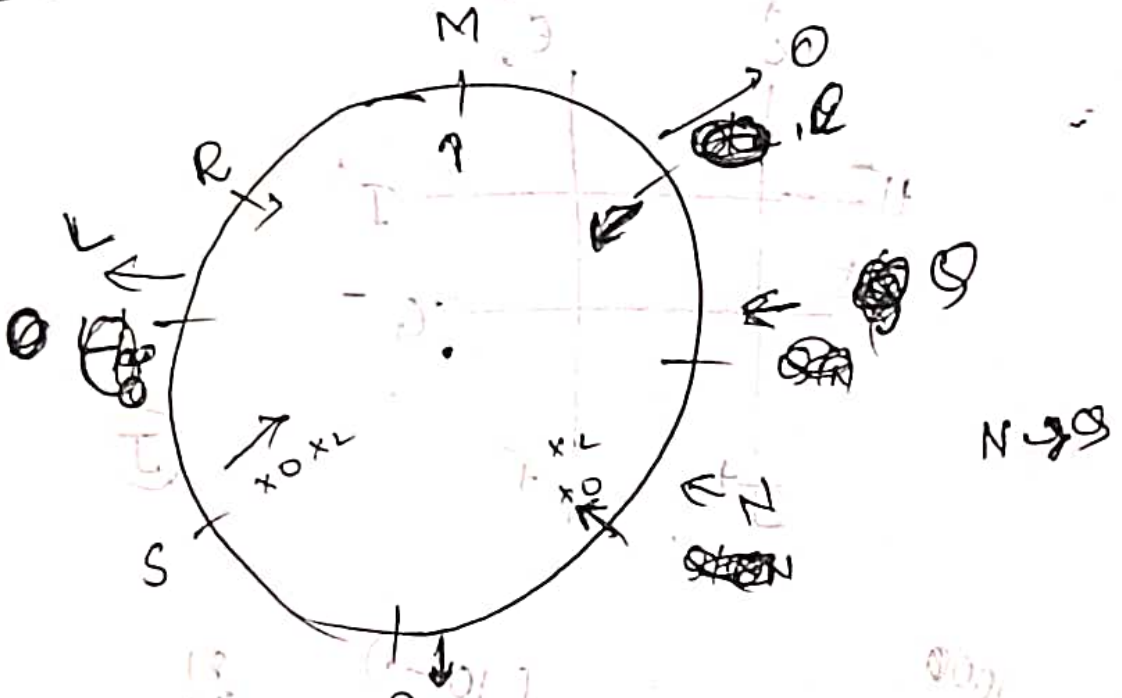
Mercedes.

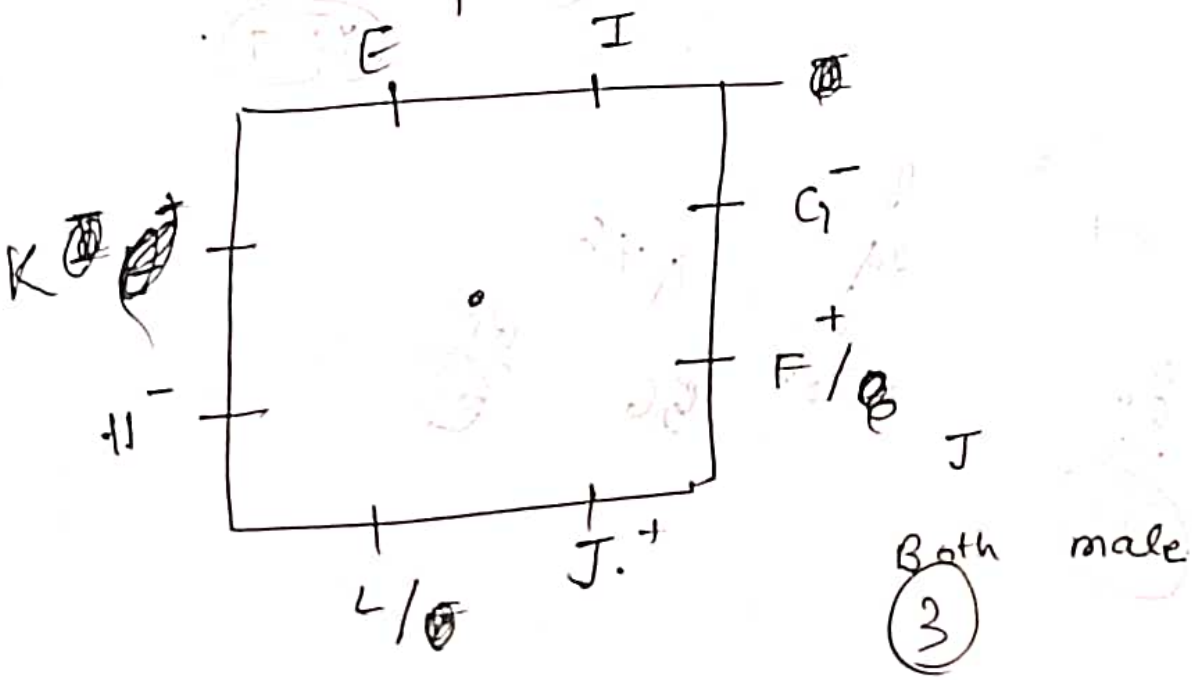
A M

C

a

b





Both male

3

8 — 8

3 x 12 — 36   8

9 x 6 — 54

(98)

5   125
−98
(27)
(3)

	3 face painted	2 face painted	1 face painted	no face painted
		24 (2x12)	24 (6 x 2^2)	8 (2^3)
64	8	36 (12 x 3)	54 (6 x 3^2)	27 (3^3)
125	8	48 (12 x 4)	96 (6 x 4^2)	64 (4^3)
5 - 216	8	60 (12 x 5)	150 (6 x 5^2)	125 (5^3)
7 - 343	8	72 (12 x 6)	216 (6 x 6^2)	216 (6^3)
8 - 512	8	12 (n − 2)	6 $[n-2]^2$	$(n-2)^3$
	8			

(36) ✓

D

4x12
6 x 6 x 4
3
16
x 6
96

36
−16
20
−18
(2)

2
64
x 6
384

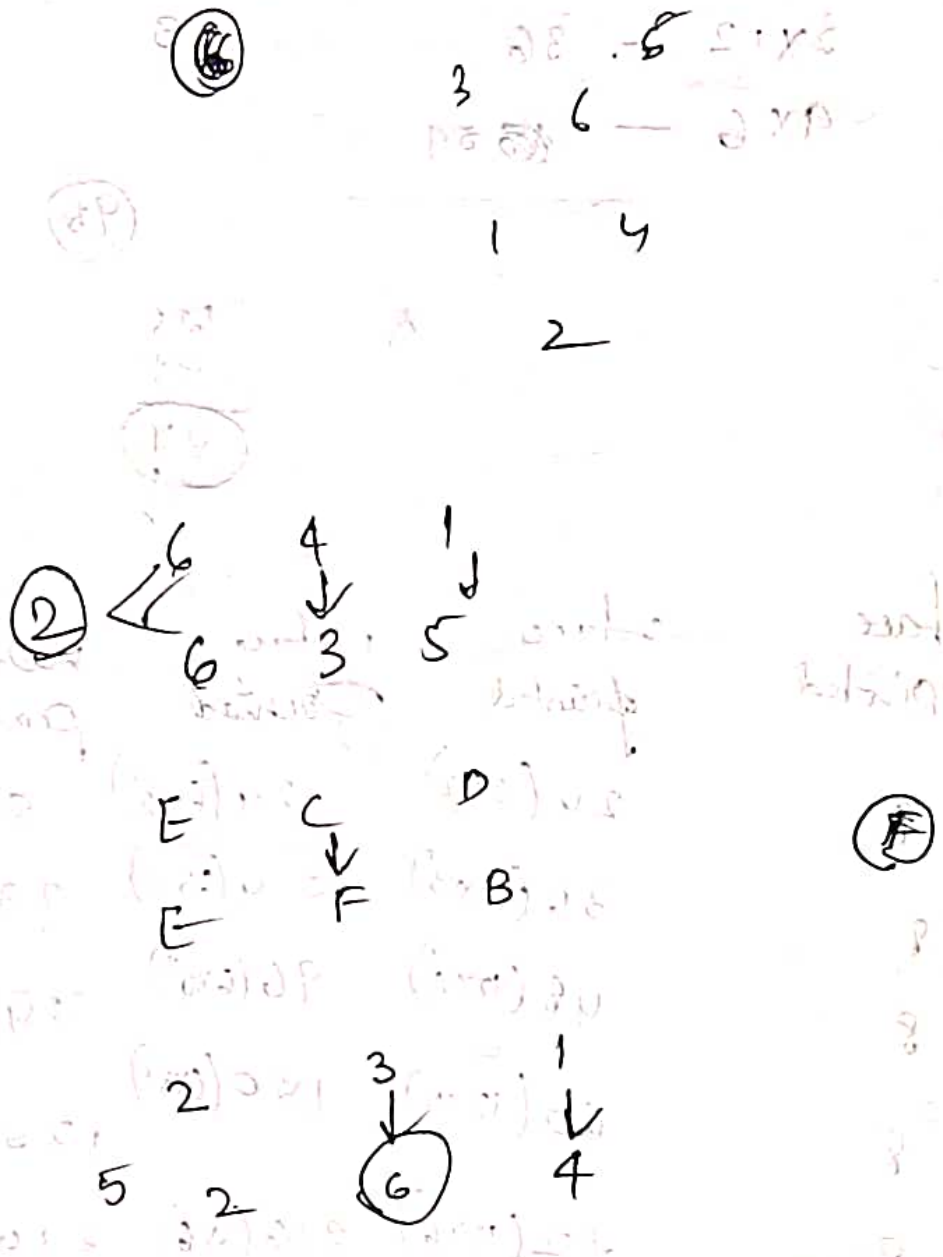
384
(24)
(12) ✓

3
25
x 6
150

3
36
x 6
216

1
216
216
432
72
504

30 +
(105) ✓



1) (D) Brother

2) (C) Grandson

3) (B) Father-in-law

4) (A) His son

5) (D) Father-in-law

6) (B) Brother

7) (C) Brother

8) (b) great grand daughter

9) (a) Mother

10) Sister-in-Law

11) (D) Cannot be determined (Son or daughter)

12) (A) Bro-in-law

13) (B) Son

14) (C) Niece

15) (C) V is the son of A

16) (C) Mother

17) (A) Grandson

18) (d) Grand-daughter

19) (E) Cousin

20) (B) Husband

21) 1) Lectures
2) 3 male
3) Manoj & Jyotsna
4) a)
5) Nidhi - Gopal

22) 1) cousin
2) Sister-in-law
3) Nephew
4) CBD

23) 1) (D) Grand-daughter
2) (A) Vikram
3) (D) Grandson of Brother in Law

24) (a) is father of P(a) ✓

25) (b) P is uncle of Q ✓

26) (a) C is mother of A ✓

27) (c) A is son of C ✓

28) (a) A is niece of C ✓

29) (b) S is father of P ✓

30) (d) S is daughter of B ✓

31) (b) Grandmother ✓

15/10/22

→ Syllogisms

→ Clocks ✓

→ Logical Connections ✓

→ Coding Decoding ✓

Clocks

→ Angle

$$\theta = \left| \left(11\frac{m}{2}\right) - 30h \right|$$

↓

Angle b/w hour hand & minute hand

$$11\frac{45}{2} - (30)(5)$$

$$\frac{495}{2} - 150$$

97.5

$\frac{195}{2}$

$\theta = 11\left(\frac{50}{2}\right) - 30(7)$

$\Rightarrow \frac{550}{2} - 210$ $\quad \frac{130}{2} = 65$

$\theta = 11\left[\frac{20}{2}\right] - 30(3)$

$110 - 90 = 20.$

$\theta = 11\left[\frac{m}{2}\right] - 90$

$\frac{90 \times 2}{11} = m$ $\quad \frac{180}{11}$ $\quad 16\left(\frac{4}{11}\right)$

$\theta = 11\left(\frac{m}{2}\right) - 8270$

$\frac{270 \times 2}{11} = 49\frac{1}{11}$ with past 9

11 | 540 (49
-44↓
100
99

$180 = 11\left(\frac{m}{2}\right) - 210$

$\frac{390 \times 2}{11}$

780

720

$\frac{60}{11} = 5\frac{5}{11}$

11 | 420 (38
-33↓
90
-88
2

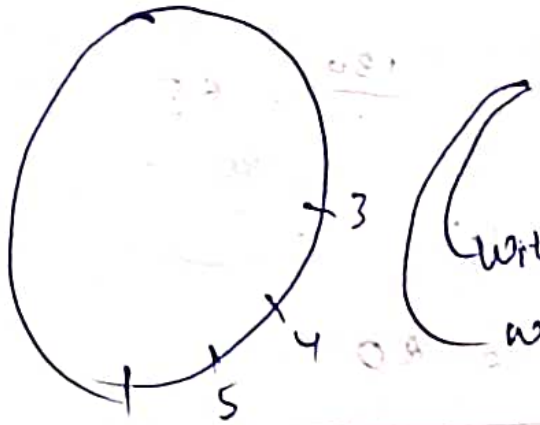
$180 = 11\left(\frac{m}{2}\right) - 30$

$\frac{210 \times 2}{11}$

420

$\frac{420}{11}$

39



② possible Right angles

Without Reducing 360

with Reducing 360

$\Rightarrow \quad 90 = 11\left(\frac{m}{2}\right) - 120$

$\frac{210}{} = 11\left(\frac{m}{2}\right)$

$\frac{420}{11} = m$

$m = \frac{60}{11}$

$\Rightarrow \quad 90 = 11\left(\frac{m}{2}\right) - 210$

$\frac{300 \times 2}{11}$

600
360

$\frac{600}{11}$, $\frac{240}{11}$

$54\frac{6}{11}$, $21\frac{9}{11}$

11) 600 (54
55↓
50
-44
6

11) 240 (21
-22↓
20
-11
9

→ 4(6).

1 min → 6°

4 min → 24°

$\Rightarrow \quad 24 = 11\left(\frac{m}{2}\right) - (5)(30)$

$\frac{114 \times 2}{11}$

11) 228 (22
-22↓
68

$22\frac{8}{11}$

$-24 = \frac{11m}{x} - 90$

$\frac{6 \times 6 \times 2}{1!} = (12)$

Logical Connectives

	Implications	Negations
If P then Q	$P \Rightarrow Q$	$P \& \sim Q$
Whenever P then Q	$\sim Q \Rightarrow \sim P$	$\sim Q \& P$
Either P or Q,	$\sim P \Rightarrow Q$	$\sim P \& \sim Q$
Unless P then Q	$\sim Q \Rightarrow P$	$\sim Q \& \sim P$
Only if P Then Q	$\sim P \Rightarrow \sim Q$	$\sim P \times Q$
	$Q \Rightarrow P$	$Q \& \sim P$

BA

DA

CB

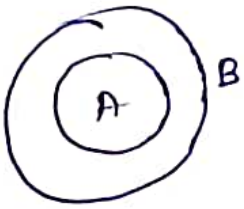
Syllogisms

Statements	Conclusion	
Not Applicable for Complimentary pair	Some / All	Basic
	NO	Basic & Possible
	Basing possibility	Basic (or) Possible
	Some not	Basic

Basic Venn

Possible

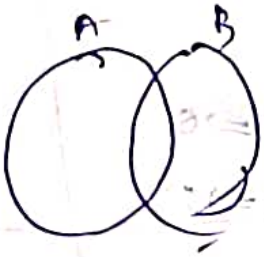
All A's are B's



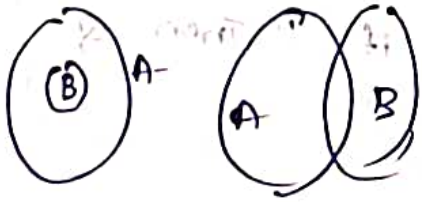
A = B

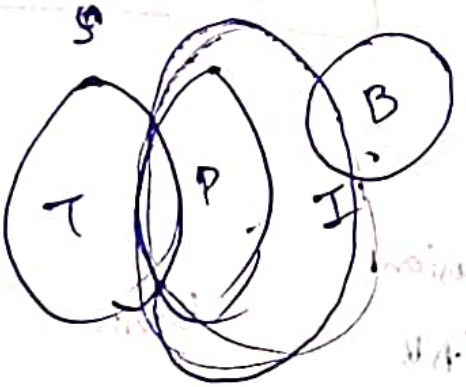
No A is B

Some A's are B's



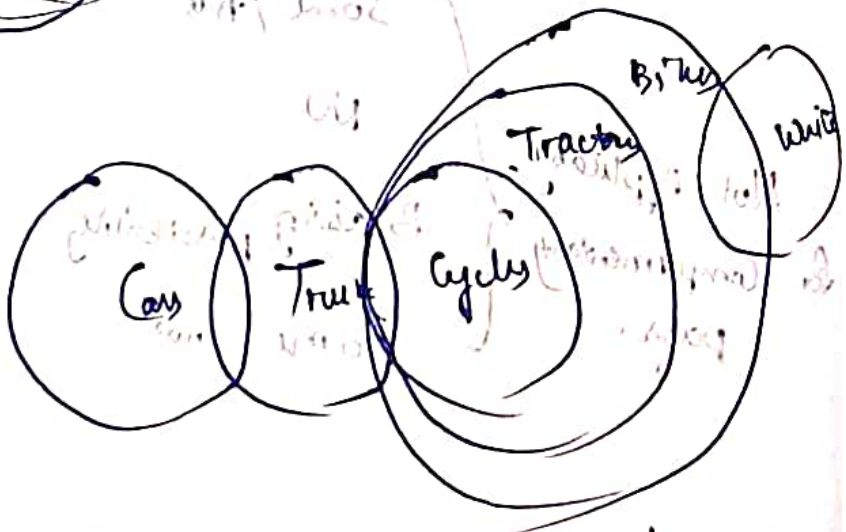
Some A's are not B's

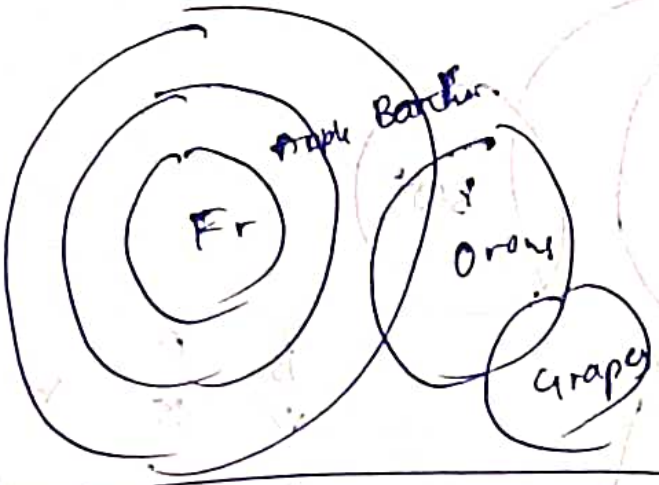




1 X
2 ✓
3 X
4 X
5 ✓
6 ✓

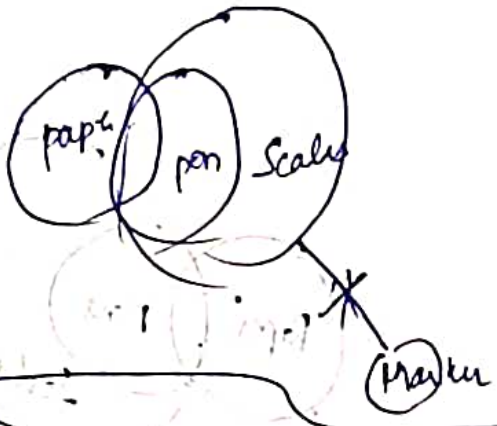
2, 5, 6 ✓

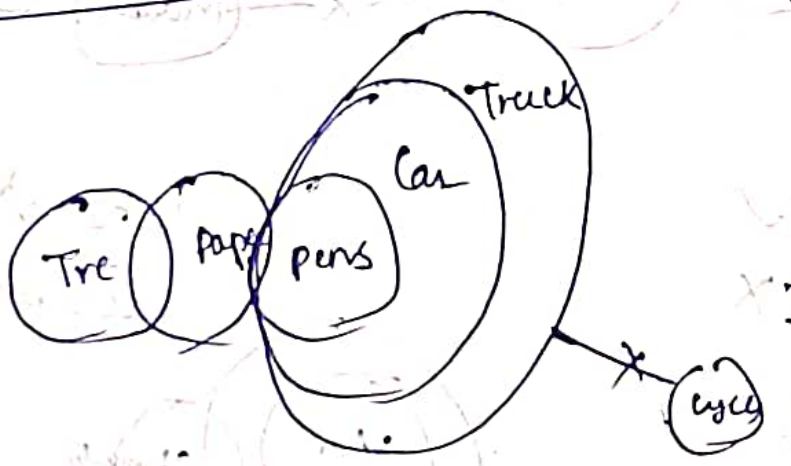




1 X
2. X
3 ✓
4 X

B P

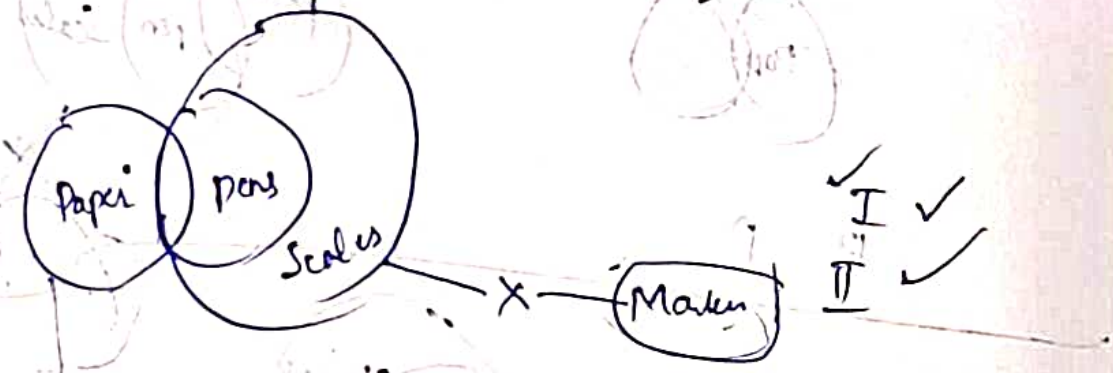




I ✓
II ✓
III X
IV X

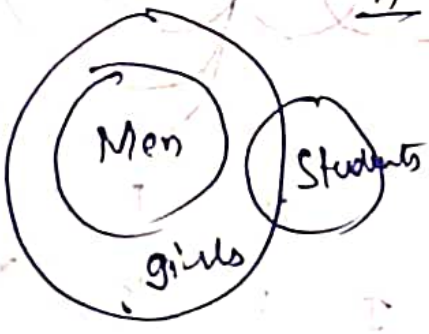
	B	P	
I	✓	X	X
II	✓	X	X
III	✓	✓	✓
IV	✓	✓	✓

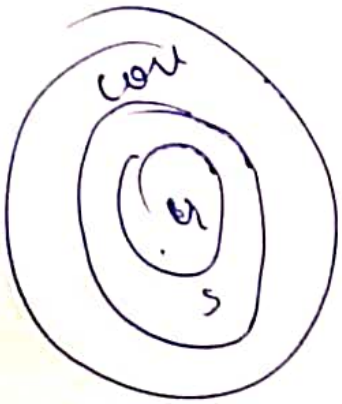
1 X
2 X
3 ✓
4. ✓



I ✓
II X
III

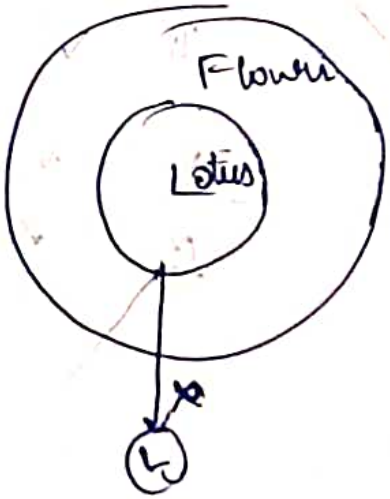
I ✓
II

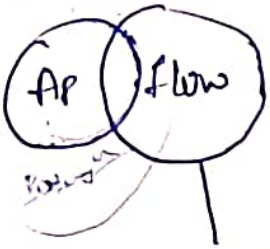


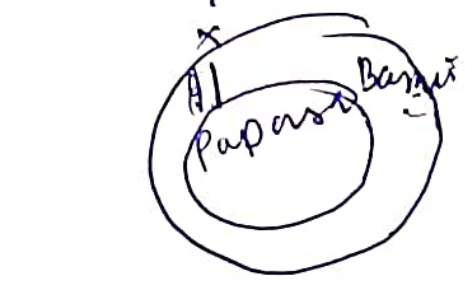


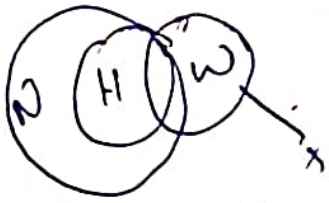
T
F

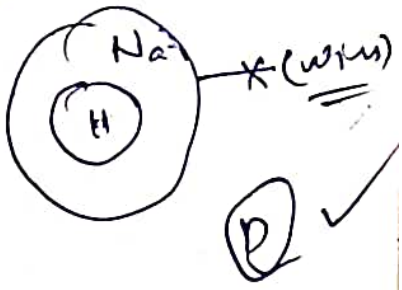
I X
II ✓





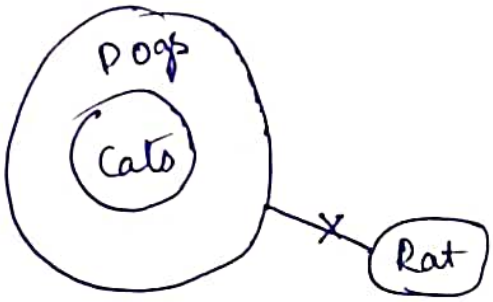




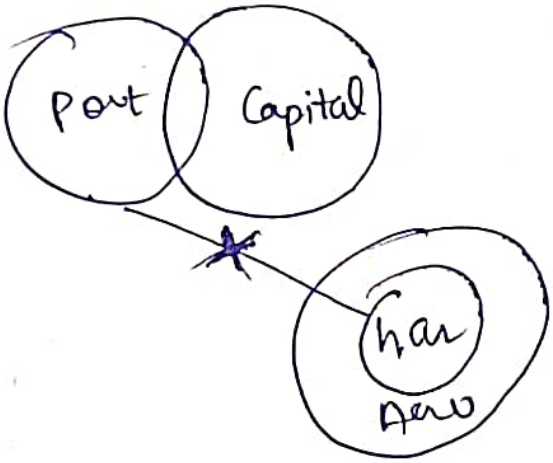


I ✗
II ✓
III ✗
IV ✓

C



I ✓
II ✓
III ✓
IV ✗



I ✓
II