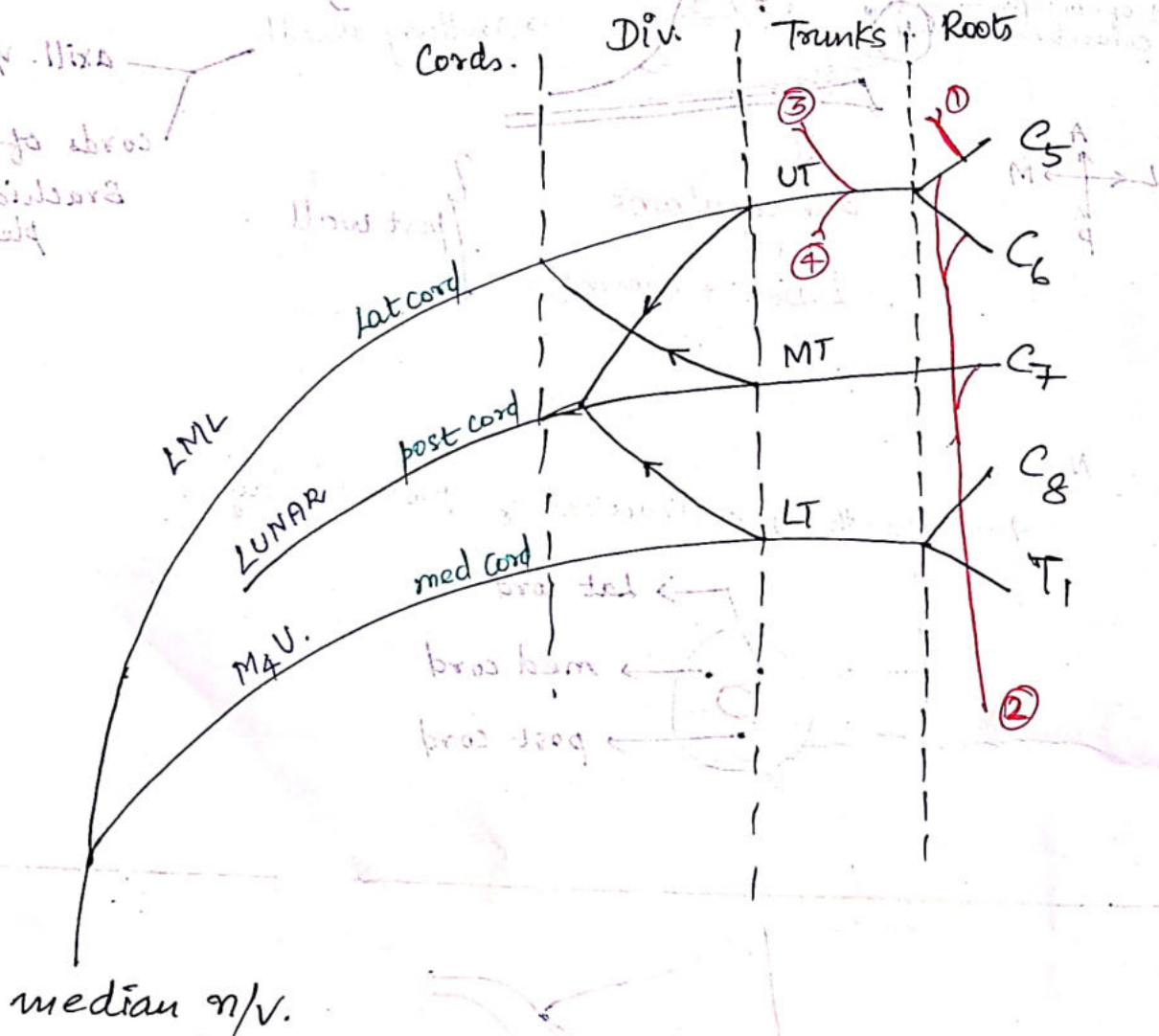


Formed by  $\frac{www.FirstRanker.com}{\text{vertical \& range of } C_5 - T_1}$   $\frac{www.FirstRanker.com}{}$

Note: prefixed B.P  $\Rightarrow$  contrib. from  $C_4$  also  
post " "  $\Rightarrow$  " "  $T_2$  also



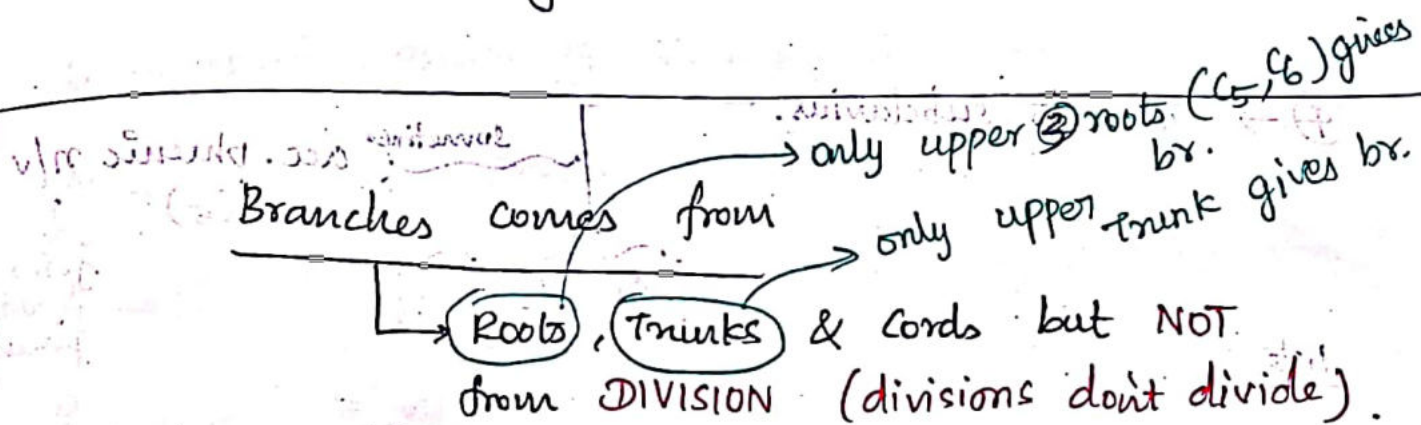
Note :

$$U_T \rightarrow C_5, C_6$$
$$MT \rightarrow C_7 \text{ (purely)}$$
$$LT \rightarrow C_8, T_1$$

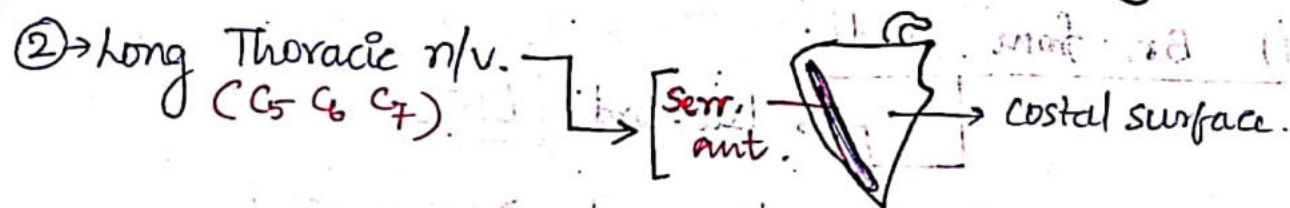
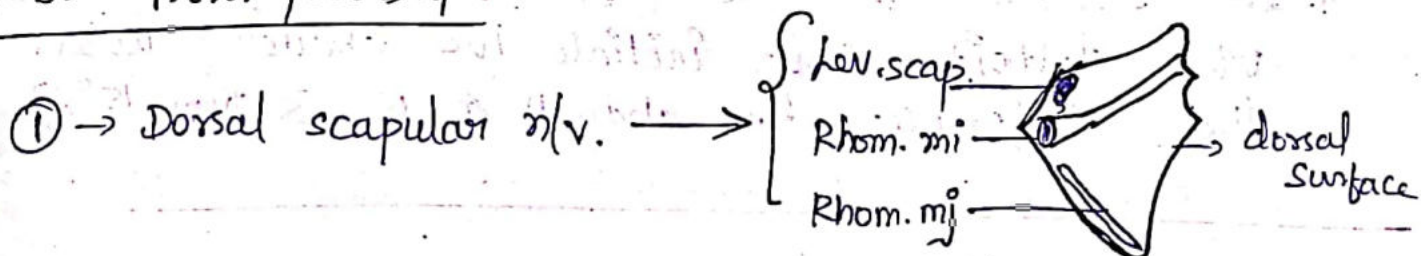
but this purity is gone  
when it became division

Cords → L, M & P in relat<sup>n</sup> to II<sup>nd</sup> & III<sup>rd</sup> part

development of Axillary a



### i) Br. from roots:



Trick: Roots are in the neck, so br. from roots supply the midline m/s. i.e. m/s inserted into MEDIAL border of scapula

Note:

\* medial border of scapula ⇒ only insert<sup>n</sup> of m/s

③ → Suprascapular n/v. → Supraspinatus & infraspinatus

④ → n/v to subclavius.

sometimes acc. phrenic n/v (C5)

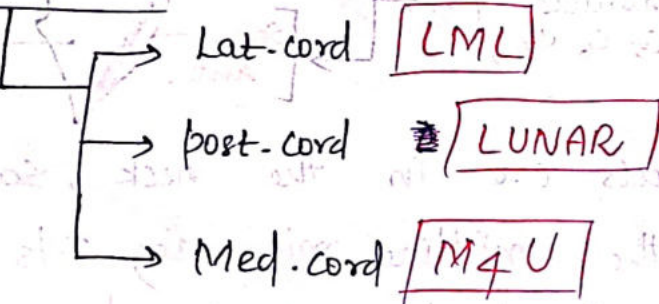
Subclavius

↓ joins with phrenic n/v

Note:

\* suprascapular n/v lesion → can't initiate abduct<sup>n</sup> but if other arm is used to initiate abduct<sup>n</sup> (0-15°) then deltoid can take over the rest of the abduct<sup>n</sup>.  
Why deltoid can't initiate the abduct<sup>n</sup>? What's the difference b/w abduct<sup>n</sup> @ 0° & from 15°?

iii) Br. from cords:



[A boy came in LML scooter in a LUNAR night and said to his girlfriend I "M4U"]

a) Lat. cord:

L → Lat. root of median n/v.

M → Musculocutaneous n/v → BBC ← cont. as lat. cut. n/v of F.A.

L → Lat. pectoral n/v

|| → pectoralis mj. (sometimes pec-mi also).  
CPF

L → Lower subscapular n/v → subscapularis

U → upper subscapular n/v → subscapularis

N → N/v to Latt. Dorsi (Thoraco Dorsal n/v) → C<sub>6</sub> C<sub>7</sub> C<sub>8</sub>

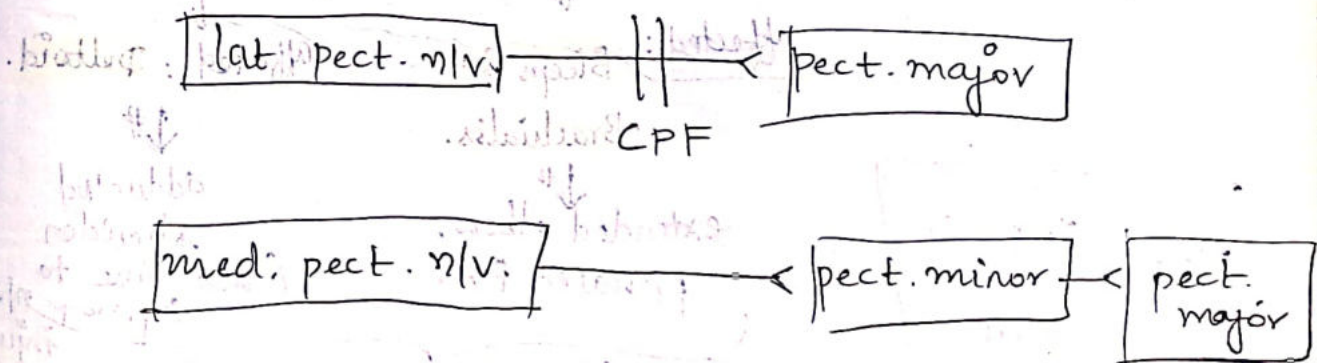
A → Axillary n/v → Deltoid (15-90° abd.) + Teres minor

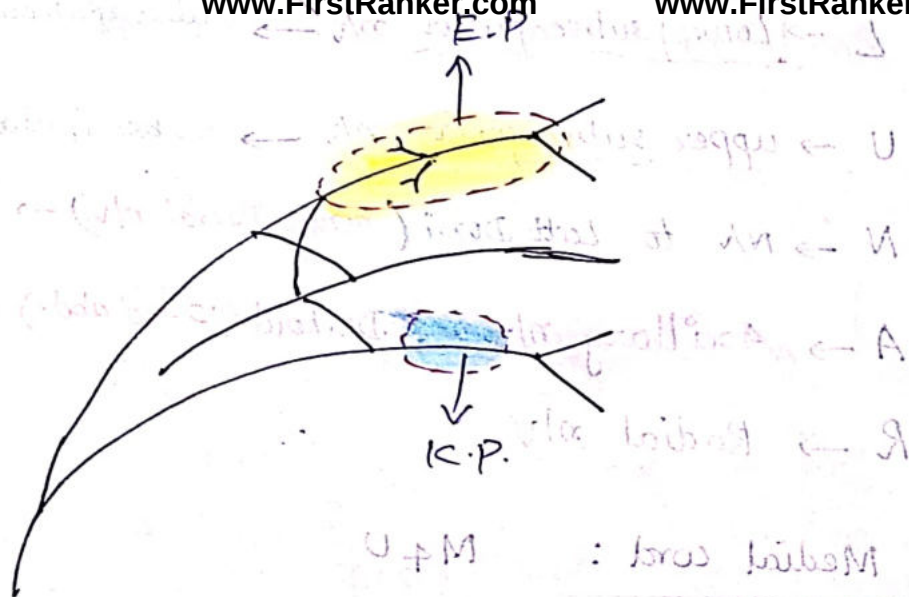
R → Radial n/v.

c) Medial cord : M4 U

- ↓  
M4 U  
lat. cord.
- M → Medial root of Median n/v.
  - M → Medial pectoral n/v → pect. mi — pect. major.
  - M → Medial cut. n/v of Arm.
  - M → Medial cut n/v of F.A.
  - U → Ulnar n/v.

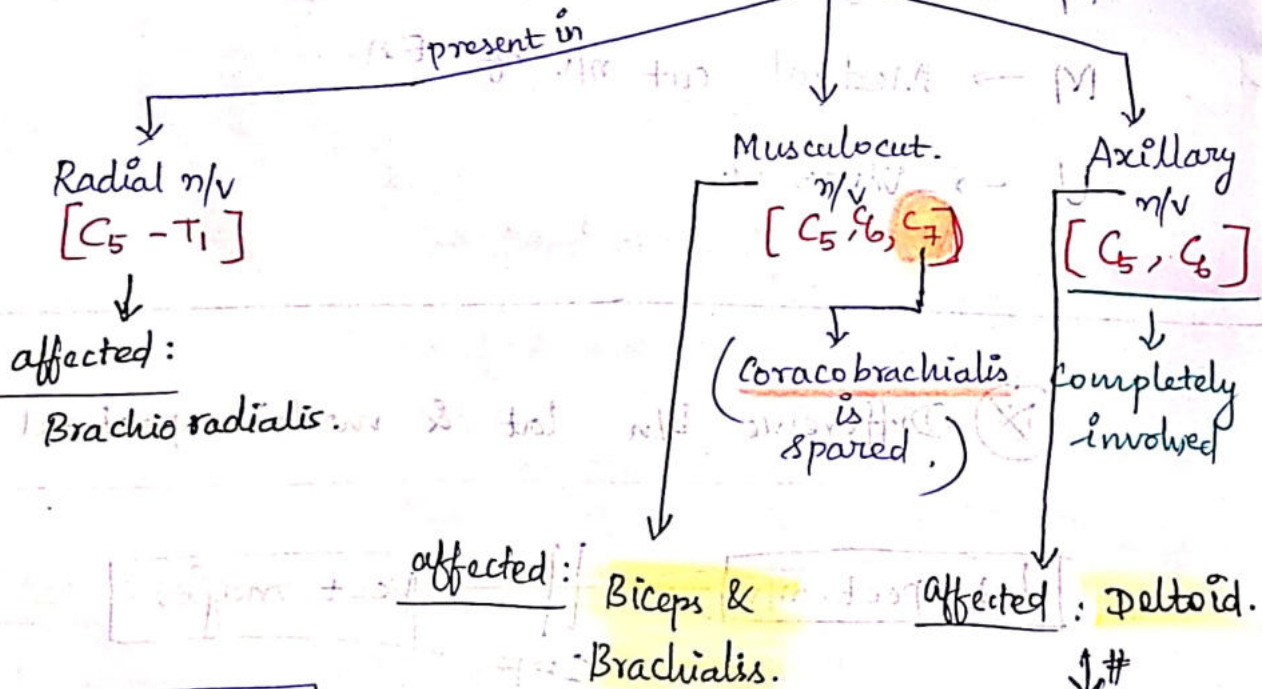
⊗ Difference b/n lat. & medial pectoral n/v.





## 1) Erb's palsy

Root value involved → **C5 & C6**



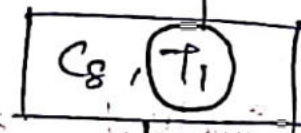
extended elbow,  
pronated F.A.

adducted  
shoulder  
(also due to  
suprascap. n/v injury)

Biceps — flex<sup>n</sup>  
                  — supinat<sup>n</sup>

Policeman's Tip Hand  
Porter's Tip Hand  
Walter's Tip Hand

Root value involved  $\rightarrow$



median n/v

ulnar n/v

intrinsic m/s of Hand.

Hyperextension of MCP jt.  
Flex<sup>n</sup> at IP jt.

CLAW HAND.

#  $\rightarrow$  Horner's syndrome

Note:

main func. common of Lumbricals  
& Interossei

flex<sup>n</sup> of MCP jt.  
extension of IP jt.

So in Klumpke's Palsy

Hyperext<sup>n</sup> of MCP jt  
& flex<sup>n</sup> at IP jt

Root value involved → **C5, C6**

present in

Radial n/v  
(C5 - T1)

affected: Brachio  
- Radialis

Musculo cut. n/v  
(C5, C6, C7)

Coraco  
- brachialis  
is spared.

affected: Biceps Brachii  
& Brachialis

↓ #  
Extended arm  
& pronated F.A

Axillary n/v  
(C5, C6)

Complete  
gone

affected: Deltoid

↓ #  
adducted  
& shoulder  
Regiment Badge  
Sign

shoulder - adducted  
Arm - extended  
F.A - pronated  
Wrist - flexed (due to paralysis of ECR)

⇓  
Policeman's Tip / Waiter's Tip / Porter's Tip



## Erb's palsy

- \* affected part → ~~C5/C6~~ Upper Trunk
- \* Root value → C5, C6

mainly present in

↓  
musculocut. N.

↓  
axillary N.

Muscles & sensory supp.  
affected

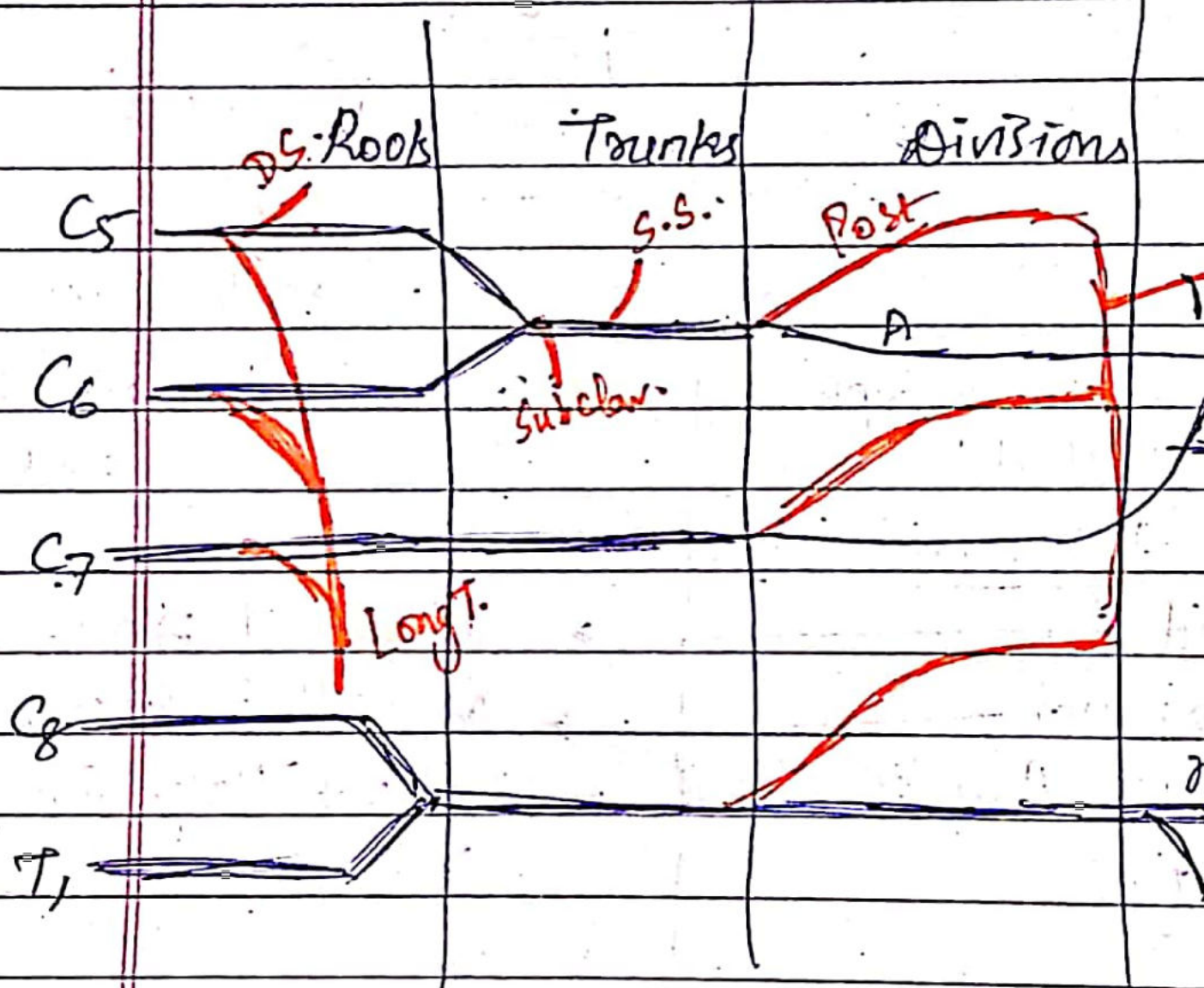
Consequences / pos'n  
v.l

### ① ~~Musculocut. N.~~ Axillary N.

- (i) Deltoid → adducted Arm.
- (ii) Teres minor → Medially rotated Arm
- (iii) Lat upp. Arm <sup>sensory supply</sup> → Regiment Badge Sign

### ② Musculocut. N.

- (i) Brachialis → Extended F-A
- (ii) Biceps Brachii → Pronated F-A
- (iii) ~~Lat. cut n.~~ Lat. cut n. of F-A → Lat 1/2 of F-A



## Brachial plexus

\* Ventral Rami of C5-T1 with contrib. from C4 & T2

\* if contribut from C4 is large & T2 is absent

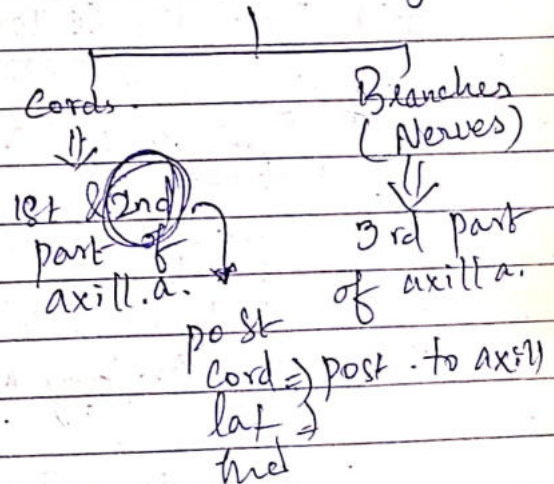
=> Prefixed B.P.

----- T1 ----- C4 -----

=> Postfixed B.P.

### Parts of B.P

|        | Suprascap. part         | Infraclav. part        |
|--------|-------------------------|------------------------|
| Parts  | Root, Trunks, Divisions | Cords & Branches       |
| Locatn | Post Δlc of Neck        | Axilla                 |
| Relatn | b/n Scalenus A & M.     | around the axillary a. |



Root value involved  $\rightarrow$   $C_8, T_1$

Median n/v

Ulnar n/v

$\downarrow \#$

$\downarrow \#$

Intrinsic m/s of Hand

$\downarrow \#$

Hyperextension of MCP jt  
Flexion of IP jt.

CLAW HAND:

$(T_1) \xrightarrow{\#}$  Horner's syndrome.

