Z = protons = $e^{\ominus}$ ($F^{\ominus}$ – Ne)

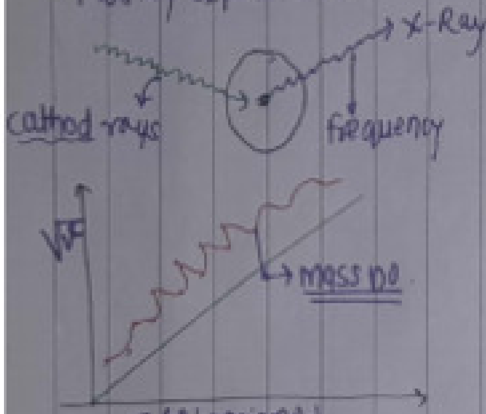
Group → A (s & p)
→ B (d block)

periodic table → H = 1
→ Og = 118 [Oganesson Og^{294}_{118}]

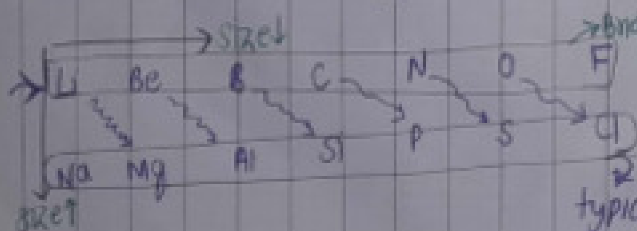
IIIB → 28 → f block, 4 → d block (32) — largest group
↳ both d & f block representative

modern periodic table

- Mosley experiment



- Modern periodic law
  ↳ chemical & physical properties of the elements are function of their Atomic no. = Z = no. of protons



Salient features

- Total elements = 118

metals > Non-metal > metalloids
metals → 95 → s, p, d, f
Non-metal → 18, metalloids → 5 → p block

Columns → verticle → (18)
→ Horizontal → (7)

Groups → (18), Block = (4)
Period → (7)

s → s_1 → Alkali metals → Li, Na, K, Rb, Cs
→ s_2 → Alkali earth metal → Be, Mg, Ca, Sr, Ba
$2e^{\ominus}$

d block – Transition elements

(Zn, Cd, Hg) → Non-Transition

F block → inner transition elements
4f → lanthanoids } rare earth elements
5f → actinoids }

(s + p) → representative elements

3rd period elements → Typical elements

2nd period → Bridge elements

Group → outermost $e^{\ominus}$ configuration same

Period → outermost shell is same

Elements → n = odd → $\frac{(n+1)^2}{2}$
→ n = even → $\frac{(n+2)^2}{2}$

$e^{\ominus}$ filling → (n + l) rule

(increasing (n + l) value)

n = principle quantum no.
l = Azimuthal quantum no.

Naming > 100 (Z)

Z > 100 → metals
→ nm

1 → un, 0 → nil
2 → bi
3 → Tri
4 → quad
5 → pent
6 → hex
7 → sept
8 → oct
9 → enn

Q

	5d	4f	6p	7s
n →	5	4	6	7
l →	2	3	1	0
n + l	7	7	7	7

→ $e^{\ominus}$ filling n of n value पर ध्यान देंगे

(4f < 5d < 6s < 7d)