d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025

d-BLOCK

n		3	4	5	6	7	8	9	10	11	12
4	3d	Sc (21)	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn (30)
5	4d	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd
6	5d	La (57)	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg
7	6d	Ac (89)	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn

d में n-1 करते हैं।

- Total d block elements = 40
- group → 3 to 10
- Period → 4 to 7
- La and Ac are d block elements
- Metals

Khel 2 : Transition elements

3:40 / 2:33:24

Scroll for details

Khel 2 : Transition elements

- All d block elements are transition elements
  except g12 → Zn, Cd, Hg, Cn
- atleast 1 unpaired e⁻ होना chaiye, तब ही Transition elements बोलेंगे,
- ∴ d block elements → 40
  but transition elements → 36

- 3d series → I^st T.S
  4d series → II^nd T.S
  5d series → III^rd T.S
  6d series → IV^th T.S

Khel 2 : कौन Stable ?

Khel 3 : कौन Stable ?

- Half filled and full filled orbitals are Stable
- d subshell ⟶ 5 orbitals
- ∴ d^5 and d^{10} stable ✓
- d^{10} > d^5 > d^3

Khel 4 : 3d series ~~fk~~ Valence Shell e^- conf.

Sc 21 ⟶ $4s^2\ 3d^1$

Ti 22 ⟶ $4s^2\ 3d^2$

Khel 4 : 3d series ~~fk~~ Valence Shell e^- conf.

Sc 21 ⟶ $4s^2\ 3d^1$

Ti 22 ⟶ $4s^2\ 3d^2$

V 23 ⟶ $4s^2\ 3d^3$

* Cr 24 ⟶ $4s^2\ 3d^4$ X ⟶ $4s^1\ 3d^5$

Mn 25 ⟶ $4s^2\ 3d^5$

Fe 26 ⟶ $4s^2\ 3d^6$

Co 27 ⟶ $4s^2\ 3d^7$

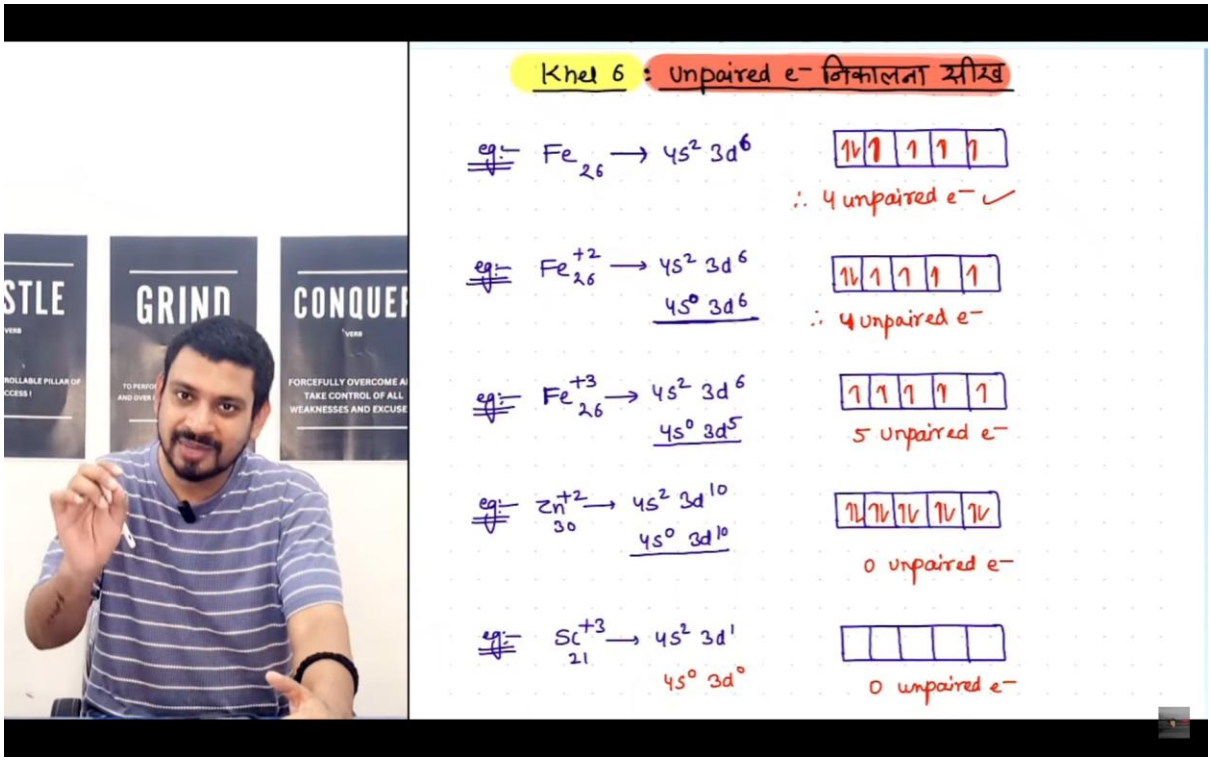
3

Ni 28 ⟶ $4s^2\ 3d^8$

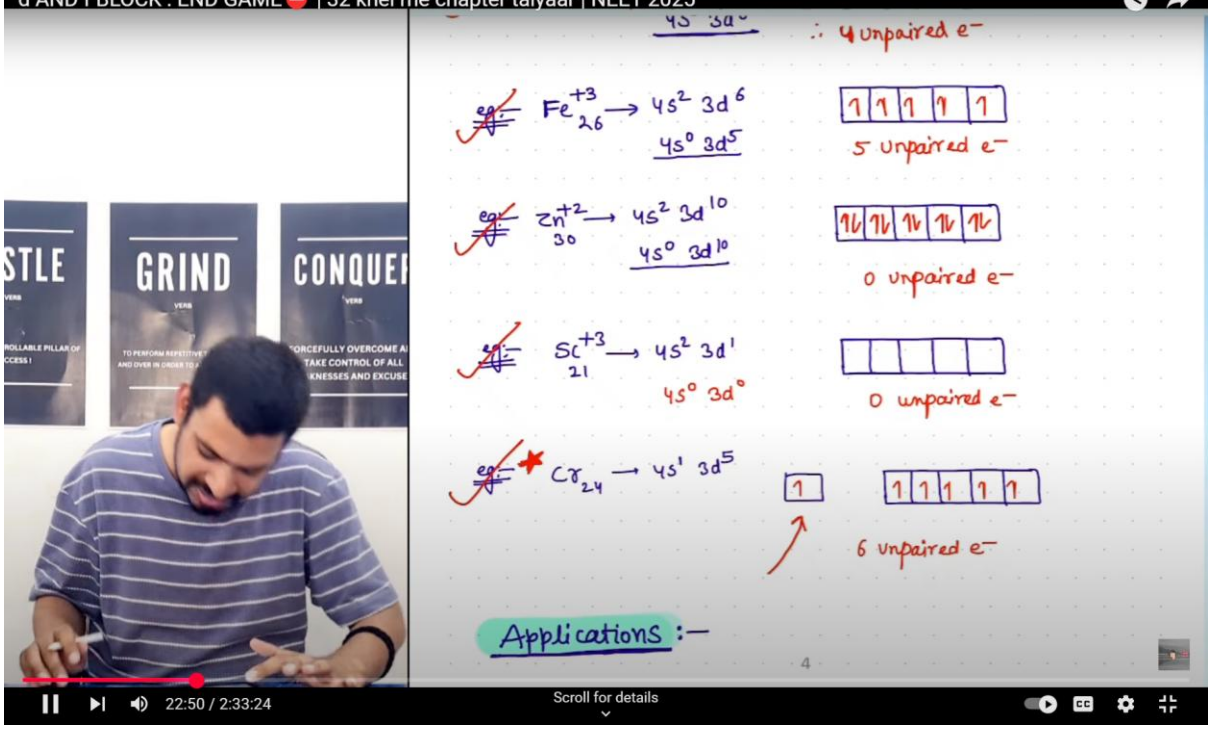
* Cu 29 ⟶ $4s^2\ 3d^9$ X ⟶ $4s^1\ 3d^{10}$

Zn 30 ⟶ $4s^2\ 3d^{10}$

Khel 6 : unpaired e⁻ [illegible]



d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025



22:50 / 2:33:24

Scroll for details

Applications :-

① M.P and B.P :-

→ Unpaired e^- जादा तो → Bonding जास्त्री
∴ M.P and B.P जादा

∴ highest ⟶ 6th group Cr, Mo, W (6 unpaired e^-)
∴ lowest ⟶ 12th group Zn, Cd, Hg (0 unpaired e^-)

exception :
g7 (Mn, Tc, Re) ⟶ 5 unpaired e^- ⟶ Still M.P and B.P low

② Enthalpy of atomisation :-

Unpaired e^- जादा तो → enthalpy of atomisation जादा

② Enthalpy of atomisation :-

Unpaired e^- जादा तो → enthalpy of atomisation जादा

exception ⟶ 3d series मे max. enthalpy of atomisation
expected ⟶ Cr (6 unpaired e^-)
reality ⟶ Vanadium

③ Coloured ions :-

Unpaired e^- ✓ तो • Colour show ✓
• absorb visible light ✓

Note :- d^0, d^{10} ⟶ colourless eg:- Sc^{+3}, Zn^{+2}
$d^1 - d^9$ ⟶ colour ✓
↳ because of d-d transition

d^0, d^{10} ⟶ but still colour then because of ⟶ Charge transfer transition
↳ eg:- in $KMnO_4$, $K_2Cr_2O_7$

→ because of d-d transition

d^0, d^{10} → but still colour then because of → charge transfer transition
→ eg:- in $KMnO_4$, $K_2Cr_2O_7$

★ d^1, d^9 → Blue ✓

★ d^2, d^8 → green

★ Cu^{+2}, Cr^{+2} → Blue
★ Mn^{+2}, Co^{+2} → Pink

④ Magnetic property :-

Paramagnetic	Diamagnetic	Ferromagnetic
→ attracted by MF	→ repelled by MF	→ Strongly attracted by M.F

★ Unpaired e^-

दिख गया → Paramagnetic bol देना

★ जितने ज्यादे unpaired e^-, उतना ज्यादा Paramagnetic.

★ Magnetic moment (μ) = $\sqrt{n(n+2)}$

n → no. of unpaired e^-

Khel 7 : general e^- conf. $n=1$ $\mu=1.7$

★ Magnetic moment (μ) = $\sqrt{n(n+2)}$ $\mu=1.7$

n → no. of unpaired e^-

Khel 7 : general e^- conf.

$n=1$ $\mu=1.7$
$n=2$ $\mu=2.7$
$n=3$ $\mu=3.7$
and so on

$_{21}Sc$ → $1s^2$ $2s^2$ $2p^6$ $3s^2$ $3p^6$ $4s^2$ $3d^1$
S SP SP SdP

∴ general e^- conf → ns^{0-2} $(n-1)d^{1-10}$ ns^{1-2}

0 कहाँ से आया — लगता गया ✓

पेपर :-

n	group 10		
4	Ni_{28}	$4s^2$	$3d^8$
5	Pd	$5s^0$	$4d^{10}$

d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025

4	Ni_{28}	$4s^2$	$3d^8$
5	Pd	$5s^0$	$4d^{10}$
6	Pt	$6s^1$	$5d^9$

Khel 8 : general properties of Transition metals

- metallic property show
  - ∴ a) highly Tensile
  - b) ductile and malleable
  - c) conductivity ↑
  - d) lustrous
  - e) hard

44:19 / 2:33:24 Scroll for details

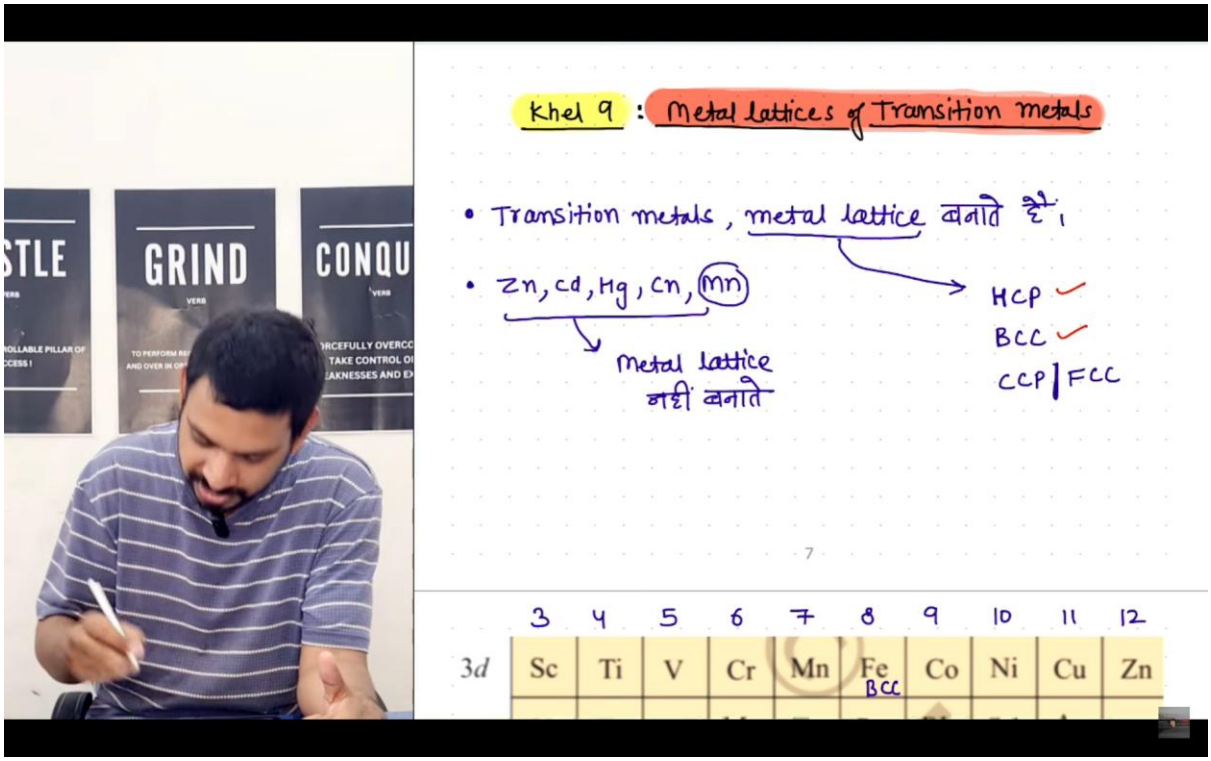
d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025

- ∴ a) highly Tensile
- b) ductile and malleable
- c) conductivity ↑
- d) lustrous
- e) hard
- f) less volatile
- g) high M.P and B.P

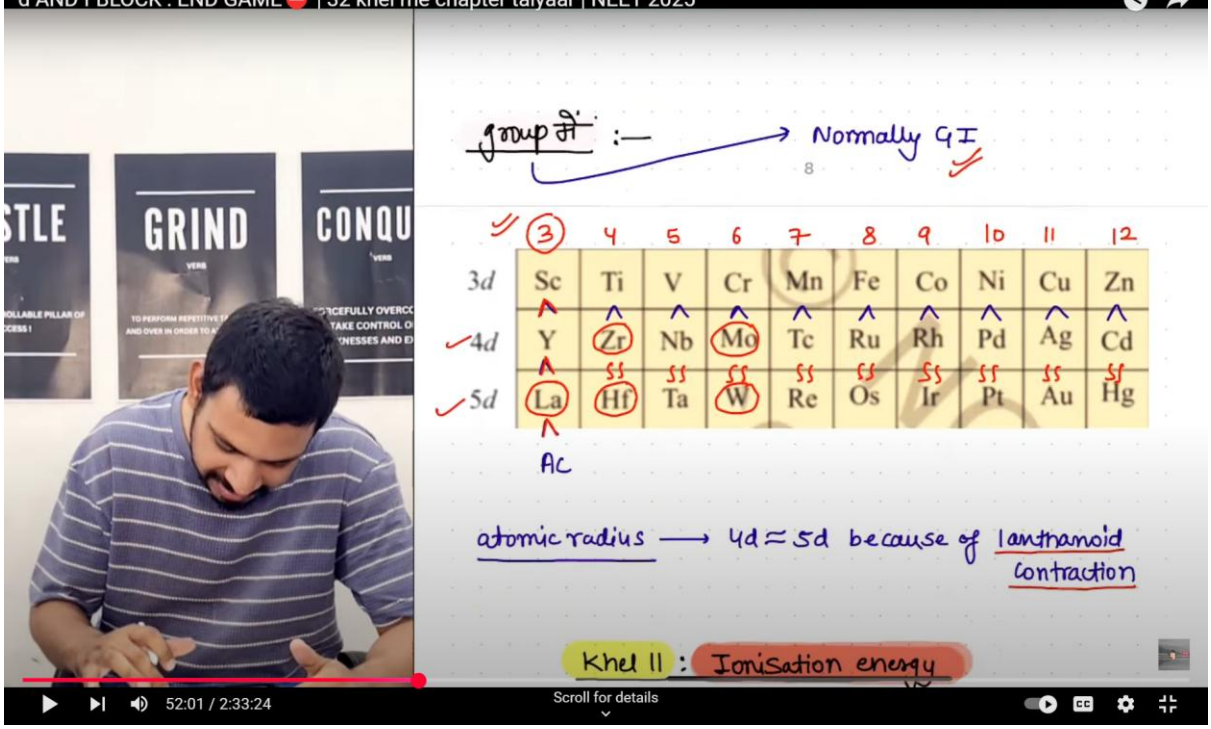
Khel 9 : Metal lattices of Transition metals

- Transition metals, metal lattice बनाते हैं।

44:59 / 2:33:24 Scroll for details



d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025



52:01 / 2:33:24

Scroll for details

group में :— → Normally ↑ I

	3	4	5	6	7	8	9	10	11	12
3d	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn
4d	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd
5d	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg
	Ac									

atomic radius → 4d ≃ 5d because of lanthanoid contraction

Khel II : Ionisation energy

HCP BCC HCP CCP/FCC

Khel 10 : Atomic radius

3d Series में :— → Normally ↑ PD

Sc Ti V Cr Mn | Fe Co Ni | Cu Zn

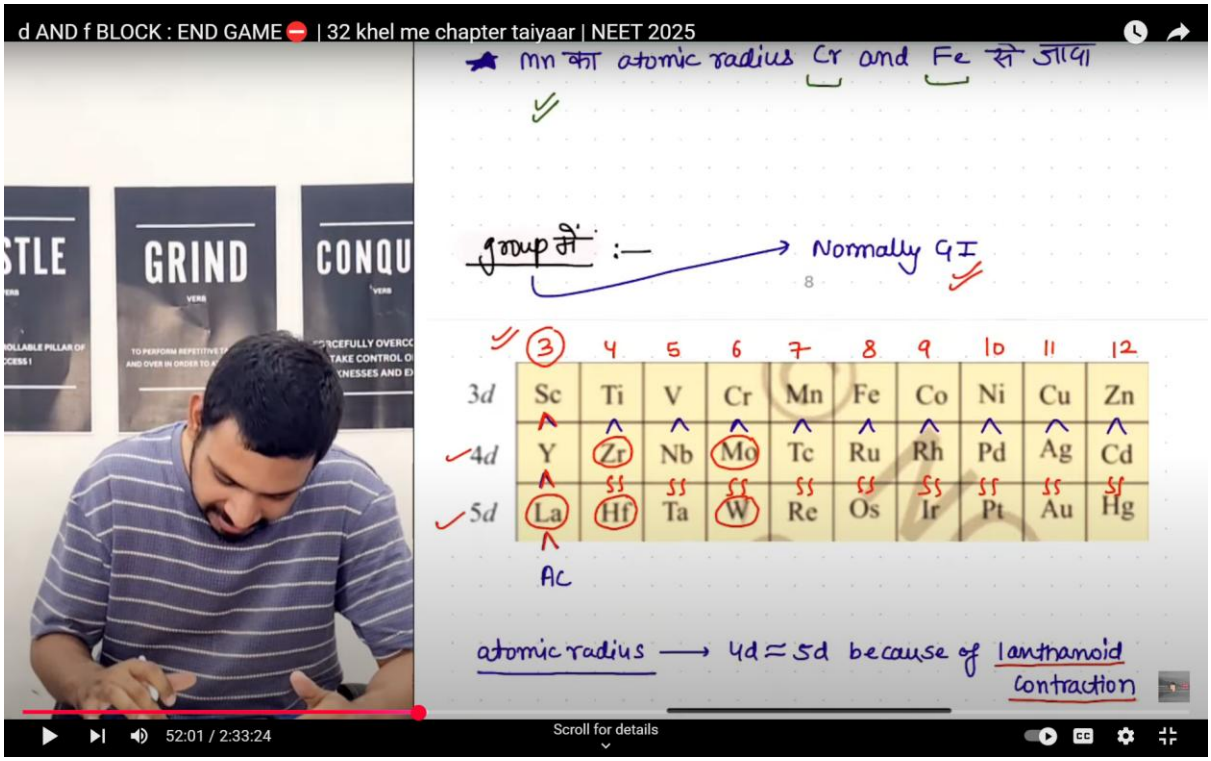
Sc Ti V Cr Mn: Zeff > σ → radius ↓

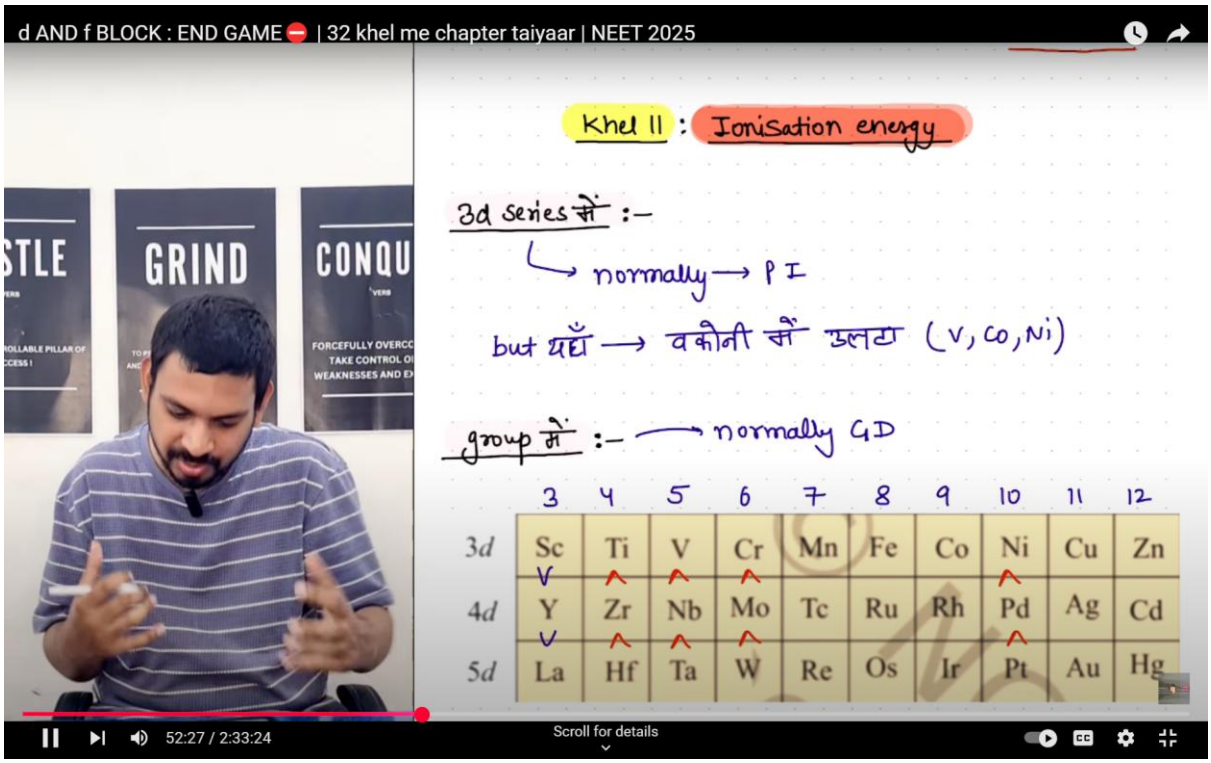
Fe Co Ni: Zeff = σ

Cu Zn: Zeff < σ → radius ↑

Since $Z_{eff} \propto \frac{1}{\text{at. radius}}$

Mn का atomic radius Cr and Fe से ज्यादा


d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025
Mn का atomic radius Cr and Fe से ज़्यादा
group में :— Normally GI
3 4 5 6 7 8 9 10 11 12
3d Sc Ti V Cr Mn Fe Co Ni Cu Zn
4d Y Zr Nb Mo Tc Ru Rh Pd Ag Cd
5d La Hf Ta W Re Os Ir Pt Au Hg
Ac
atomic radius → 4d ≃ 5d because of lanthanoid contraction
52:01 / 2:33:24
Scroll for details


d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025
Khel II : Ionisation energy
3d series में :—
normally → PI
but यहाँ → वकोनी में उलटा (V, Co, Ni)
group में :— → normally GD
3 4 5 6 7 8 9 10 11 12
3d Sc Ti V Cr Mn Fe Co Ni Cu Zn
4d Y Zr Nb Mo Tc Ru Rh Pd Ag Cd
5d La Hf Ta W Re Os Ir Pt Au Hg
52:27 / 2:33:24
Scroll for details

group में :- → normally GD

	(3)	4	5	6	7	8	9	10	11	12
3d	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn
4d	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd
5d	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg

9

group 3 → GD

group 4,5,6,10 → GI

बाकी groups में → 5d > 3d > 4d

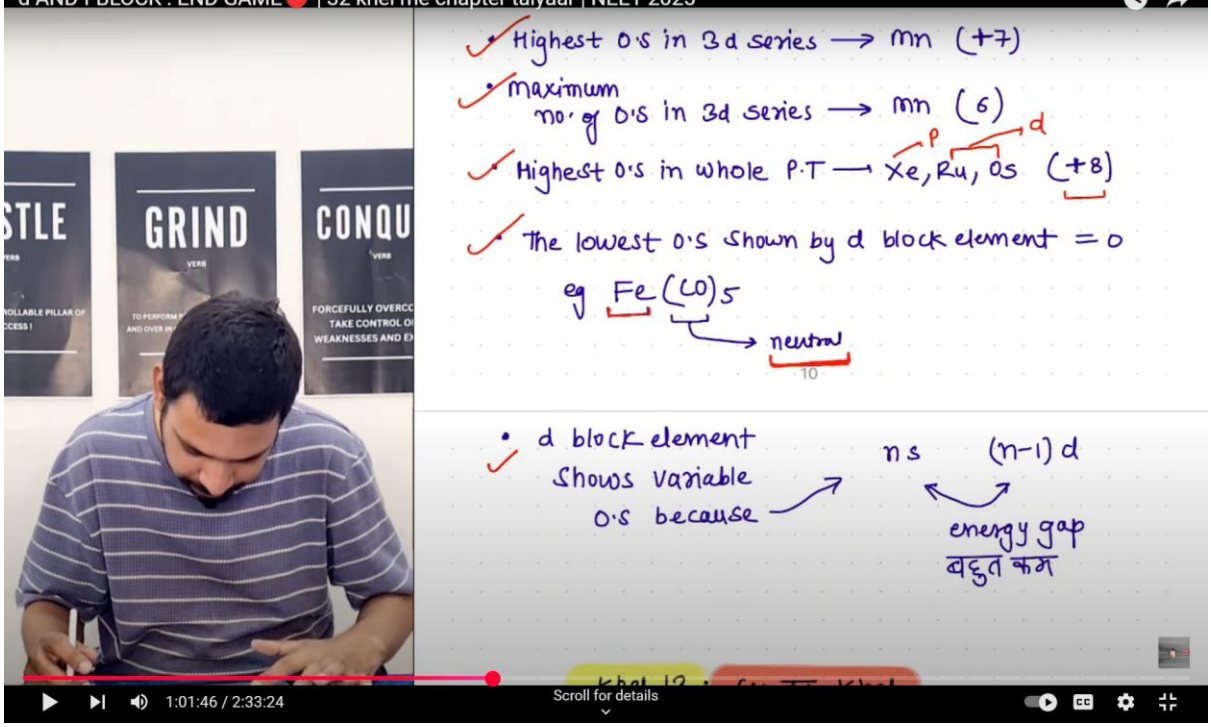
Khel 12 : Oxidation States

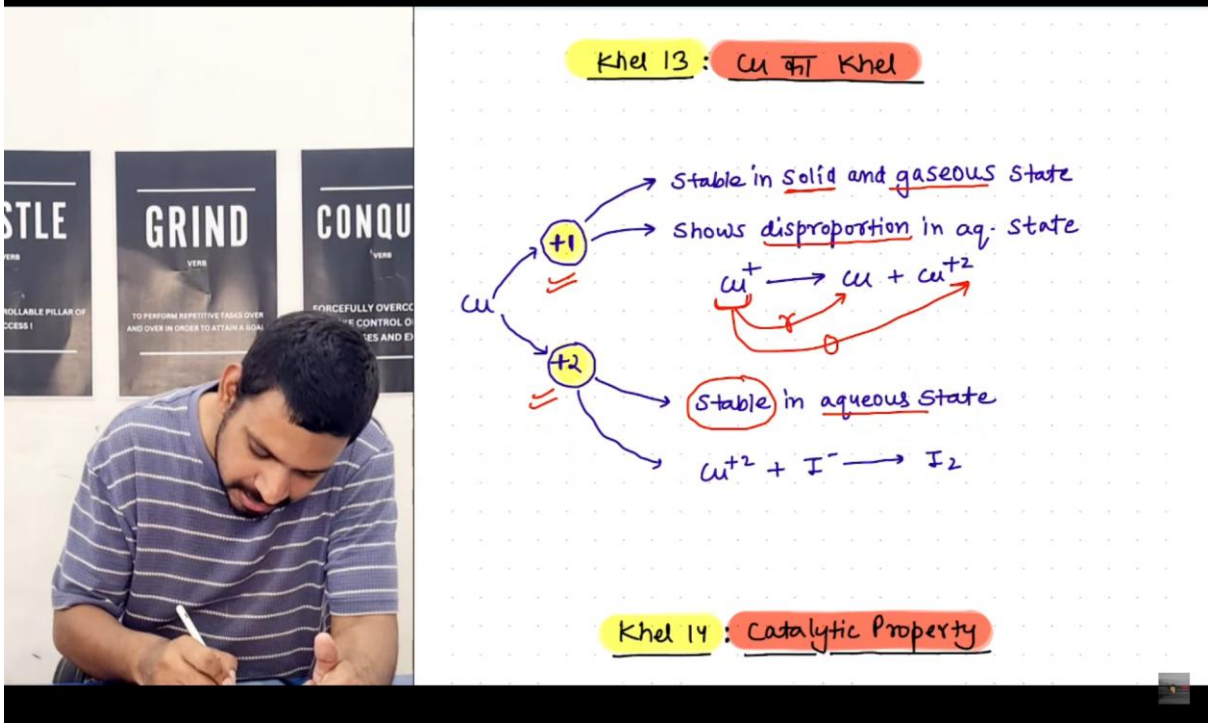
- d block elements shows variable O.S. except Sc, Zn

3	4	5	6	7	8	9	10	11	12
Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn
	+2	+2	+2	**+2**	**+2**	**+2**	**+2**	+1	**+2**
+3	+3	+3	**+3**	+3	**+3**	**+3**	+3	**+2**	
	+4	+4	+4	+4	+4	+4	+4		
		+5	+5	+5					
			+6	+6	+6				
				+7					

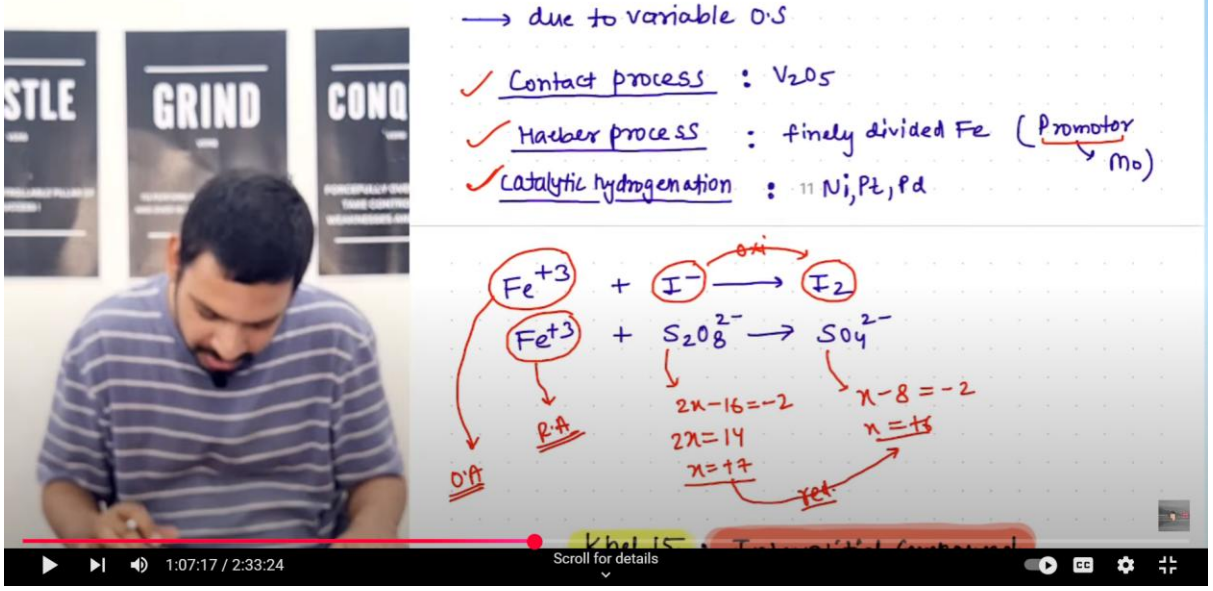
- Highest O.S in 3d series → Mn (+7)
- Maximum no. of O.S in 3d series → Mn (6)

d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025





d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025



1:07:17 / 2:33:24

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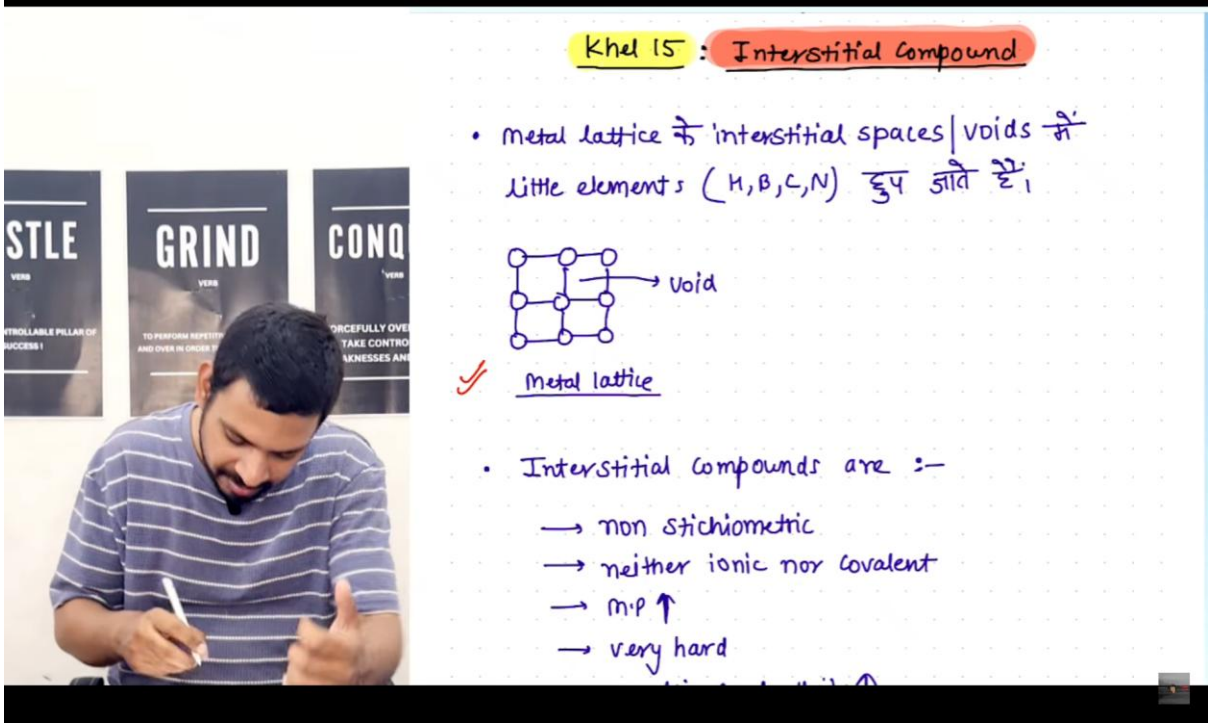
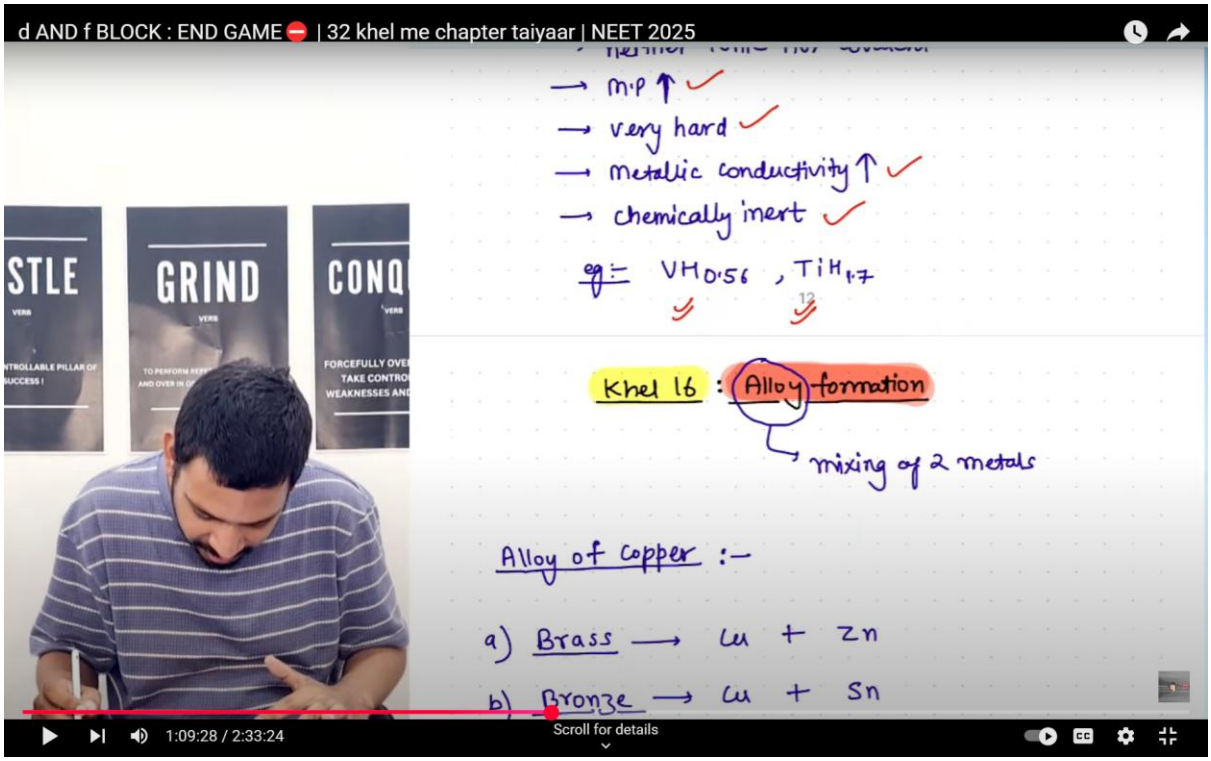
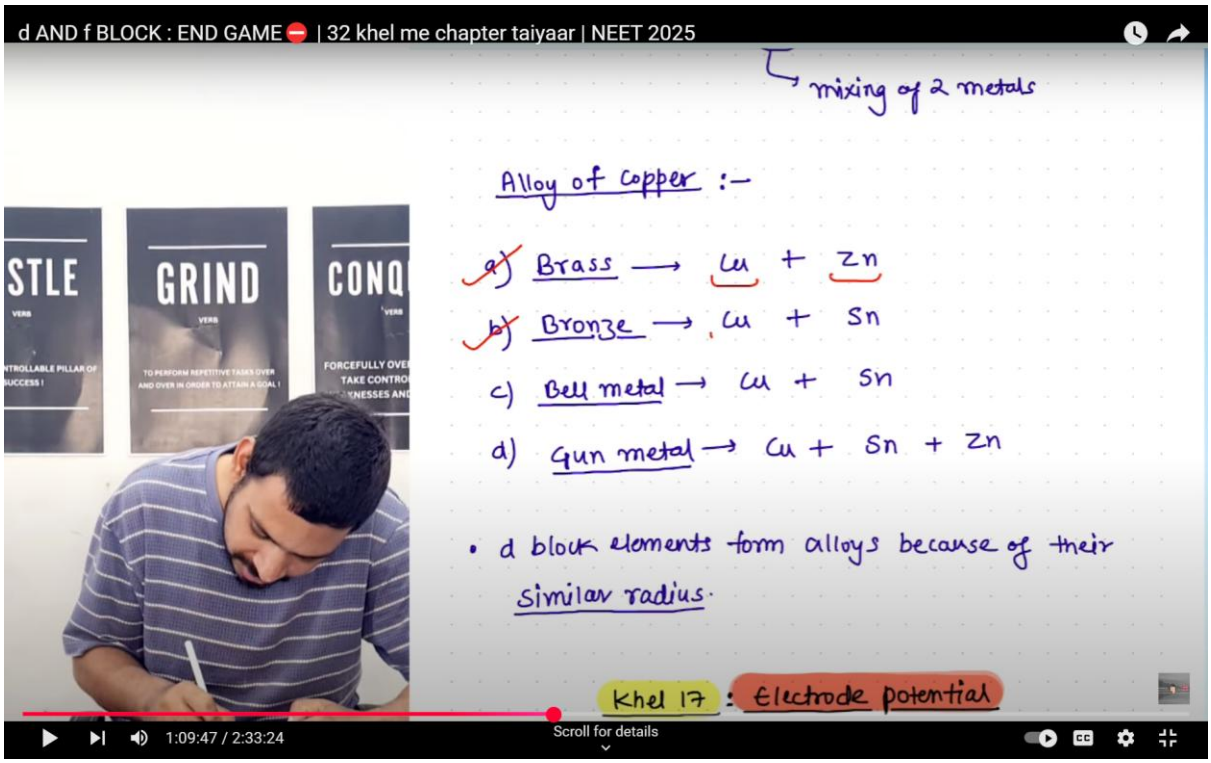
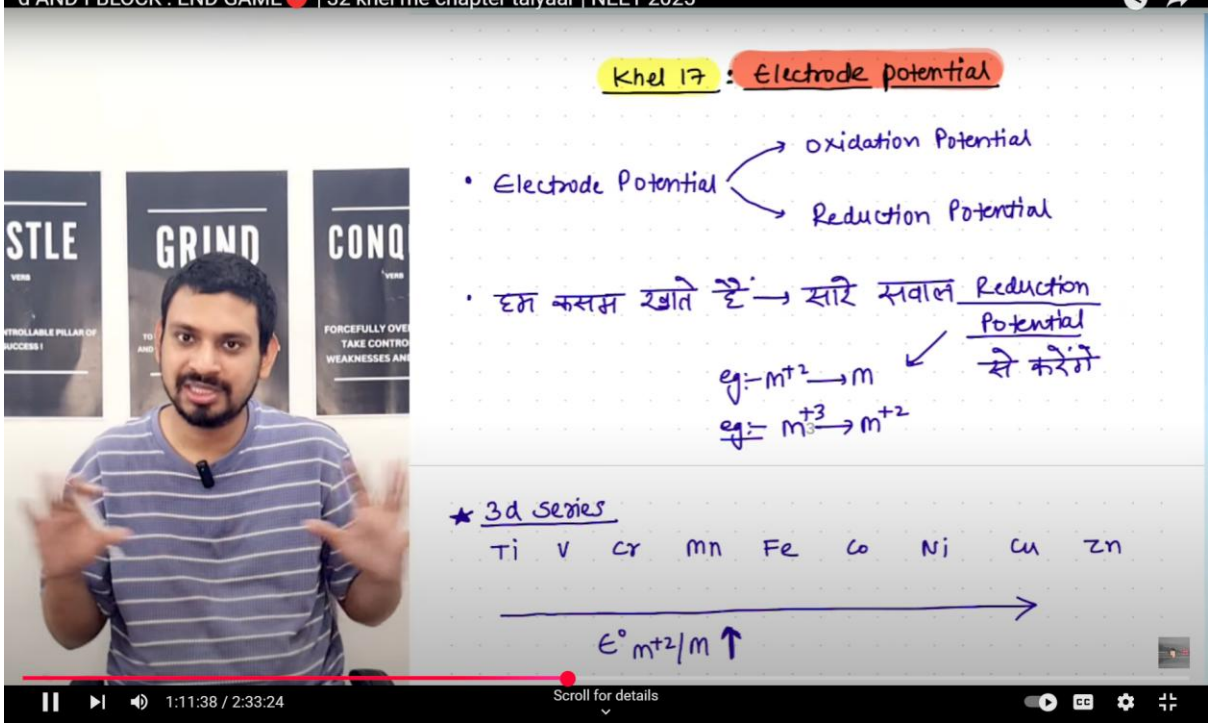
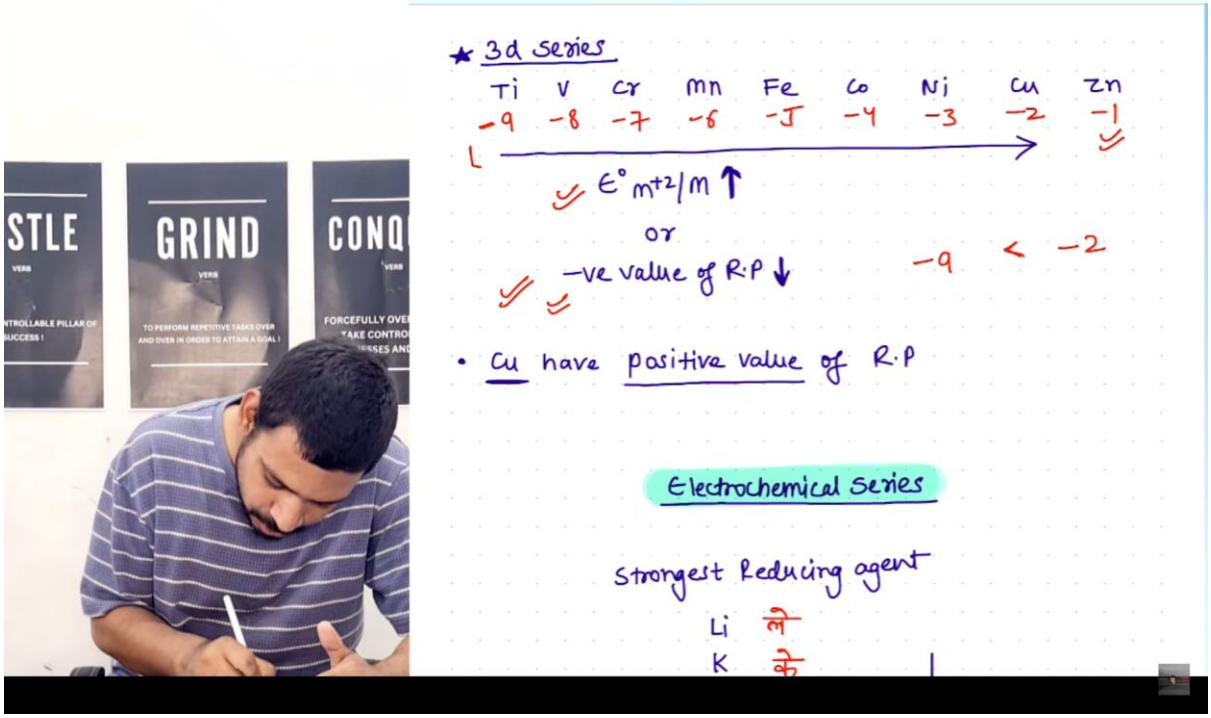


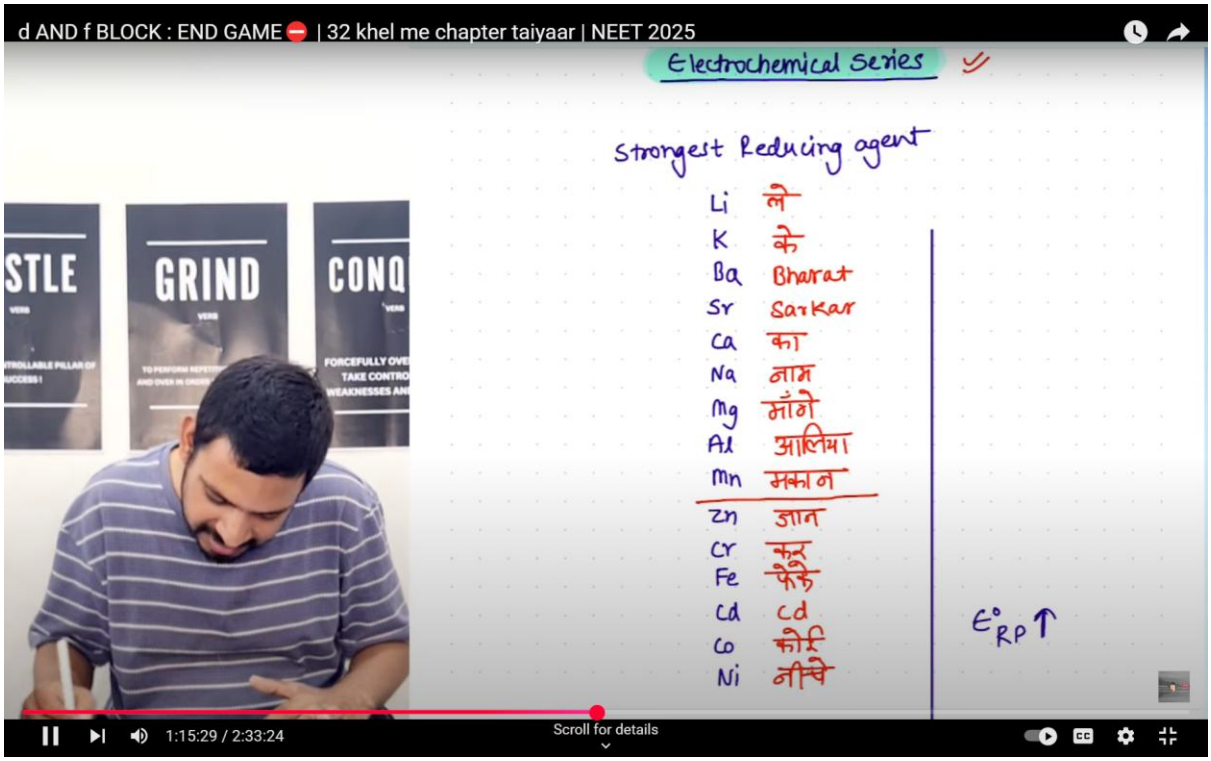

d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025
→ m.p ↑
→ very hard
→ metallic conductivity ↑
→ chemically inert
eg:- $VH_{0.56}$, $TiH_{1.7}$
Khel 16 : Alloy formation
mixing of 2 metals
Alloy of copper :-
a) Brass → Cu + Zn
b) Bronze → Cu + Sn
1:09:28 / 2:33:24
Scroll for details

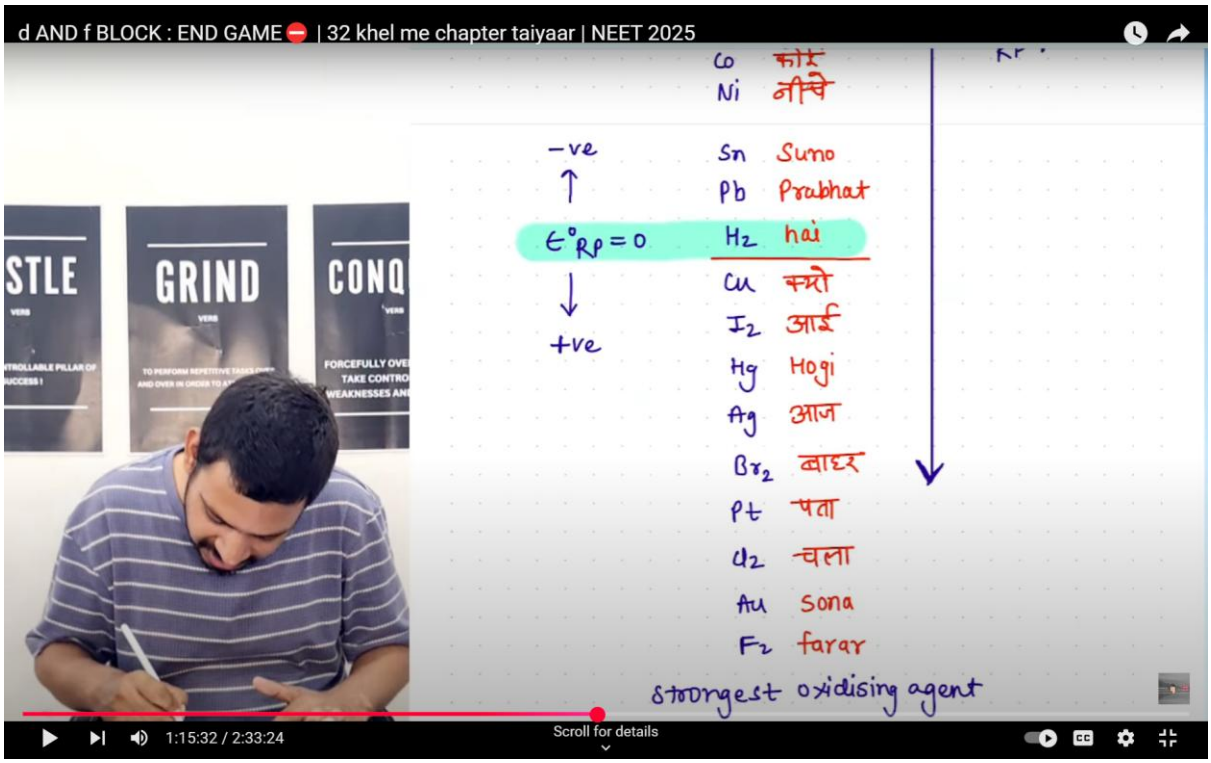

d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025
mixing of 2 metals
Alloy of copper :-
a) Brass → Cu + Zn
b) Bronze → Cu + Sn
c) Bell metal → Cu + Sn
d) Gun metal → Cu + Sn + Zn
• d block elements form alloys because of their similar radius.
Khel 17 : Electrode potential
1:09:47 / 2:33:24
Scroll for details

d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025






d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025
Electrochemical Series
Strongest Reducing agent
Li ले
K के
Ba Bharat
Sr Sarkar
Ca का
Na नाम
Mg माँगो
Al आलिया
Mn मकान
Zn ज्ञान
Cr कर
Fe फैके
Cd cd
Co कोई
Ni नीचे
E°_{RP} ↑
STLE
GRIND
CONQ
1:15:29 / 2:33:24
Scroll for details


d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025
Co कोई
Ni नीचे
−ve
↑
Sn Suno
Pb Prabhat
$E^\circ_{RP} = 0$ H_2 hai
Cu कभी
I_2 आई
Hg Hogi
Ag आज
Br_2 बाहर
Pt पता
O_2 चला
Au Sona
F_2 farar
↓
+ve
Strongest oxidising agent
STLE
GRIND
CONQ
1:15:32 / 2:33:24
Scroll for details

Khel 18 : Higher oxidation states in halides

- 3d series के metals अपनी higher O.S में generally Flouride banate hai

  eg VF_5, CrF_6, CoF_3 → high lattice energy

  → high bond enthalpy

15

- Mn +4 oxidation तक ही halide banata hai and usme bhi +3, +4 में flouride

- Mn +7 oxidation state में oxy Flouride banata hai (MnO_3F)

Khel 19 : Higher oxidation states in Oxides

- Mn ने F halide only +4 oxidation तक बनाया था (MnF_4) but Mn oxide +7 oxidation state के भी बना देता है (Mn_2O_7)

∴ Stability of 3d series के oxides > flourides

- Mn_3O_4, Fe_3O_4, Co_3O_4 → Mixed Oxides

Khel 20 : Potassium Permagnate ($KMnO_4$) ka Preperation का Khel.

Mn^{+4}	$\longrightarrow$	Mn^{+6}	$\longrightarrow$	Mn^{+7}
(MnO_2)		(K_2MnO_4)		($KMnO_4$)
Pyrolusite ore		Potassium Magnate		Potassium Permagnate
brown / black		green		Purple

Khel 21 : Disproportion rexn. of Potassium Magnate

brown / black green Purple

Khel 21 : Disproportion rexn. of Potassium Magnate

$$K_2MnO_4 + H^+ \longrightarrow KMnO_4 + MnO_2$$

Khel 22 : Decomposition of $KMnO_4$

$$KMnO_4 \xrightarrow{\Delta} MnO_2 + K_2MnO_4 + O_2$$

d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025

Khel 23 : Magnate and Permagnate ion

Potassium Magnate

K_2MnO_4

Magnate ion $\longrightarrow MnO_4^{2-}$

d^1

$\therefore$ 1 unpaired e^-

$\therefore$ Paramagnetic

$\therefore$ Colour ✓ green

↳ due to dd transition

Potassium Permagnate

$KMnO_4$ (Mn^{+7})

Permagnate ion $\longrightarrow MnO_4^-$

d^0

$\therefore$ 0 unpaired e^-

$\therefore$ diamagnetic

$\therefore$ Colour ✗

but still purple Colour

$\therefore$ due to charge

1:35:11 / 2:33:24 Scroll for details

$\therefore$ Paramagnetic ✓

$\therefore$ Colour ✓ green

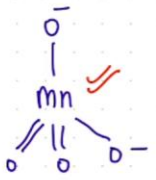
↳ due to dd transition

$\therefore$ diamagnetic ✓

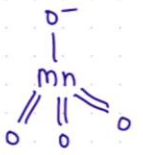
$\therefore$ Colour ✗

but still purple Colour

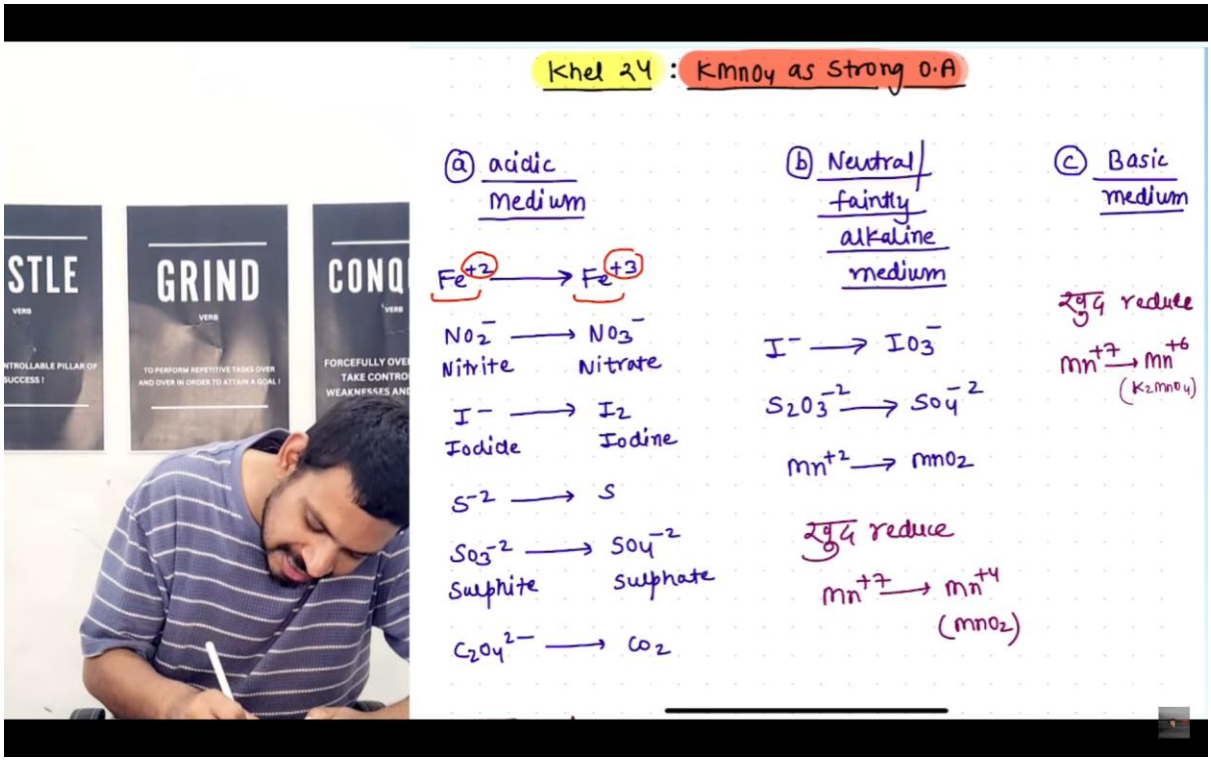
$\therefore$ due to charge transfer transition.

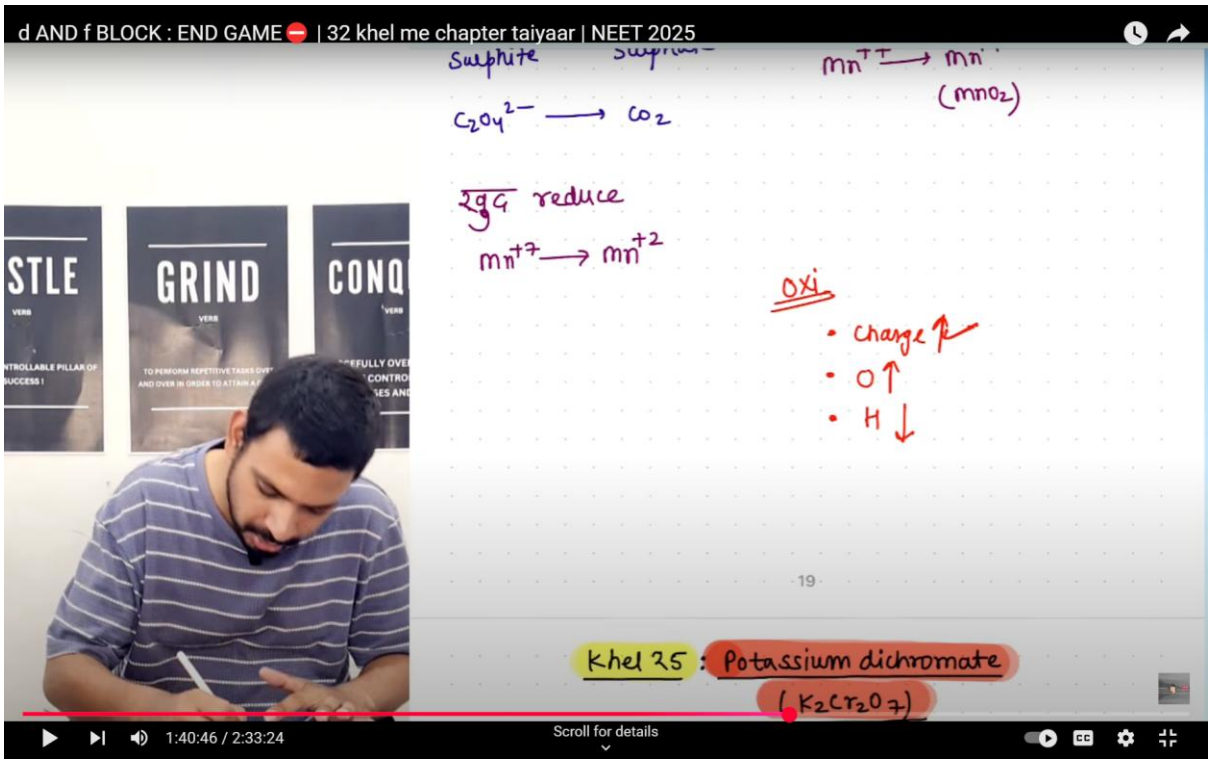


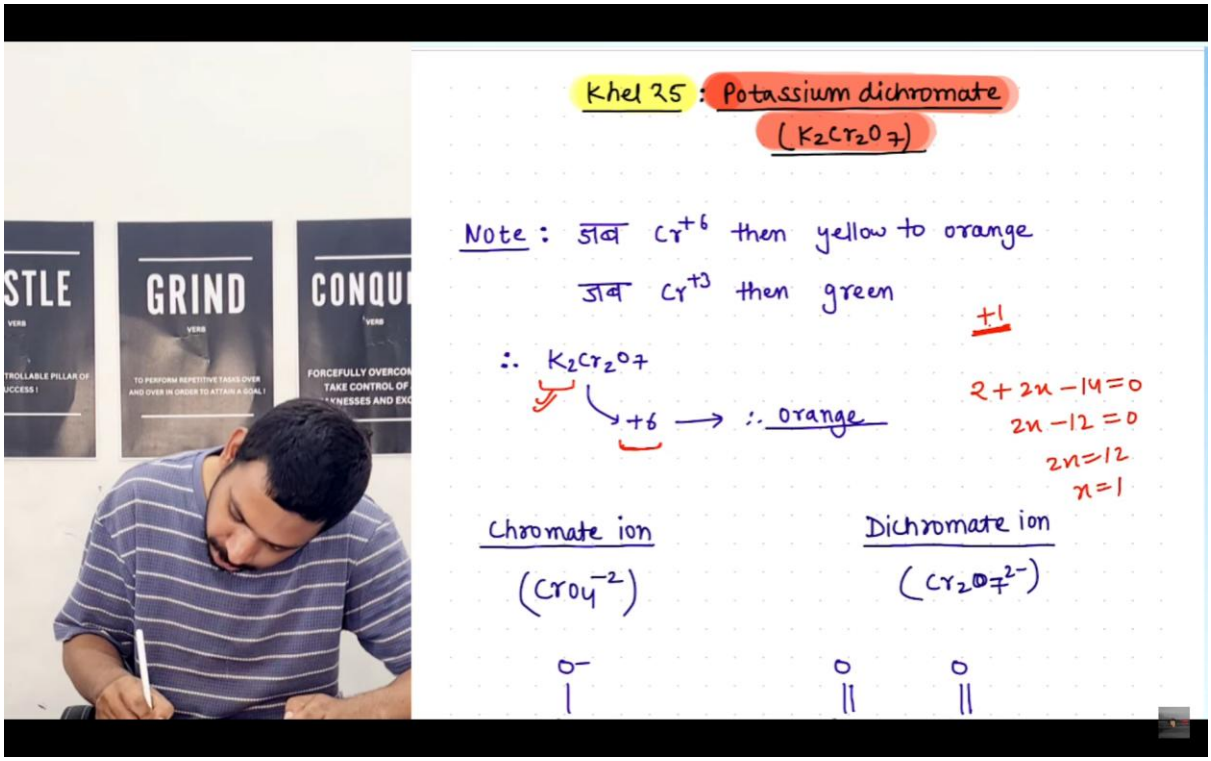
• all bonds equal

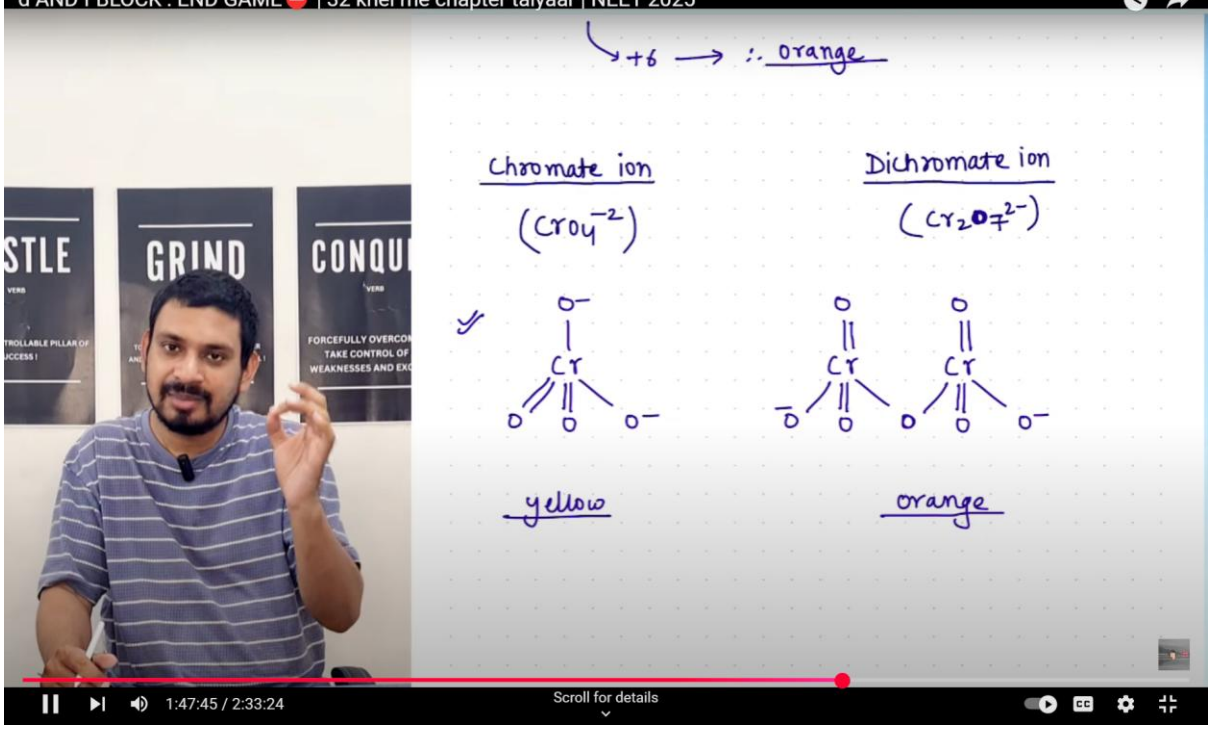


• all bonds equal.

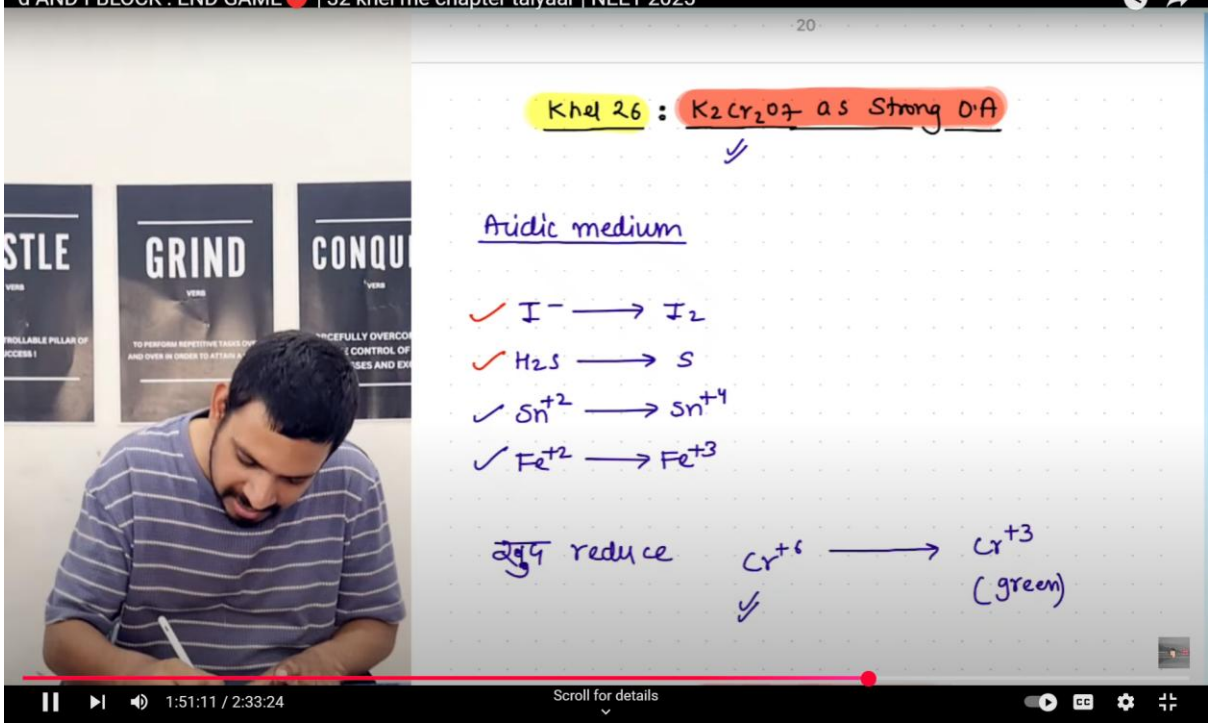

Khel 24 : KMnO4 as Strong O.A
(a) acidic medium
(b) Neutral / faintly alkaline medium
(c) Basic medium
Fe+2 → Fe+3
NO2− → NO3−
Nitrite Nitrate
I− → I2
Iodide Iodine
S−2 → S
SO3−2 → SO4−2
Sulphite Sulphate
C2O4 2− → CO2
I− → IO3−
S2O3−2 → SO4−2
Mn+2 → MnO2
रेडक्स reduce
Mn+7 → Mn+4
(MnO2)
रेडक्स reduce
Mn+7 → Mn+6
(K2MnO4)


d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025
Sulphite
C2O4 2− → CO2
Mn+7 → Mn+4
(MnO2)
रेडक्स reduce
Mn+7 → Mn+2
OXi
• charge ↑
• O ↑
• H ↓
19
Khel 25 : Potassium dichromate
(K2Cr2O7)
1:40:46 / 2:33:24
Scroll for details

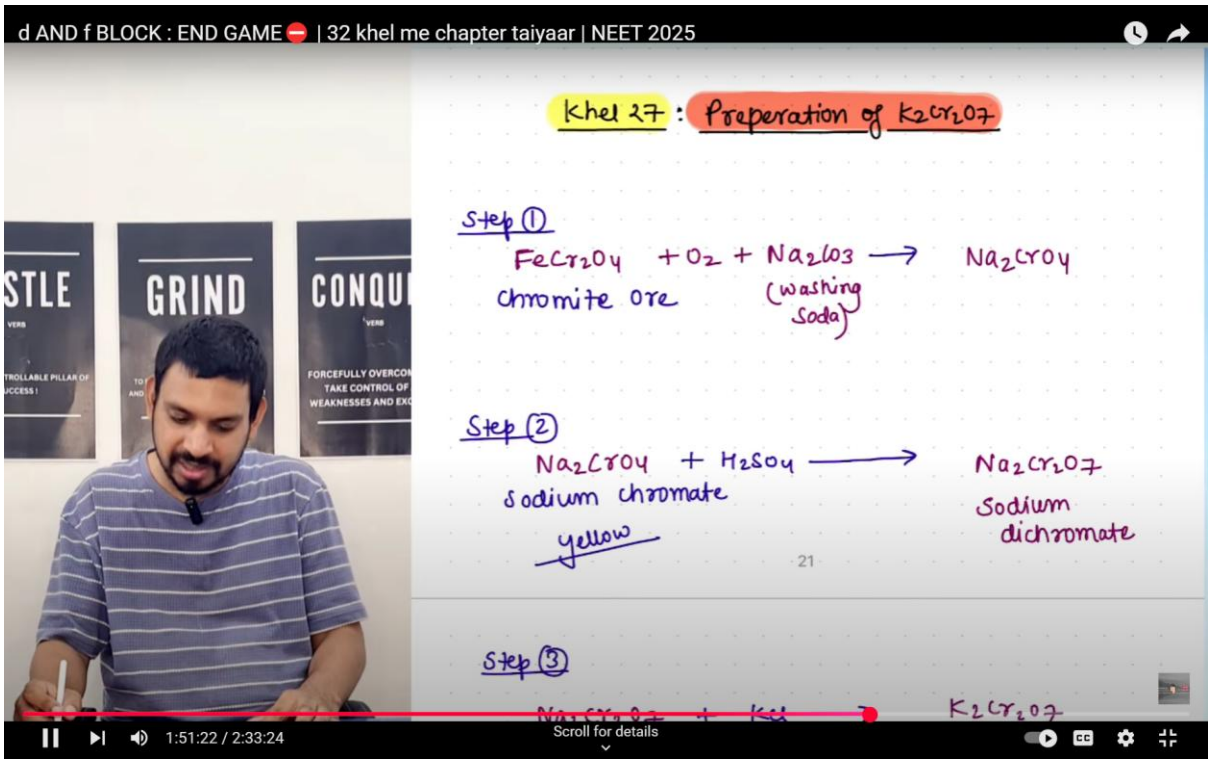

Khel 25 : Potassium dichromate
($K_2Cr_2O_7$)
Note : जब Cr^{+6} then yellow to orange
जब Cr^{+3} then green
$\therefore K_2Cr_2O_7$
+6 → ∴ Orange
$2+2n-14=0$
$2n-12=0$
$2n=12$
$n=1$
Chromate ion
(CrO_4^{-2})
Dichromate ion
($Cr_2O_7^{2-}$)


+6 → ∴ Orange
Chromate ion
(CrO_4^{-2})
Dichromate ion
($Cr_2O_7^{2-}$)
yellow
orange

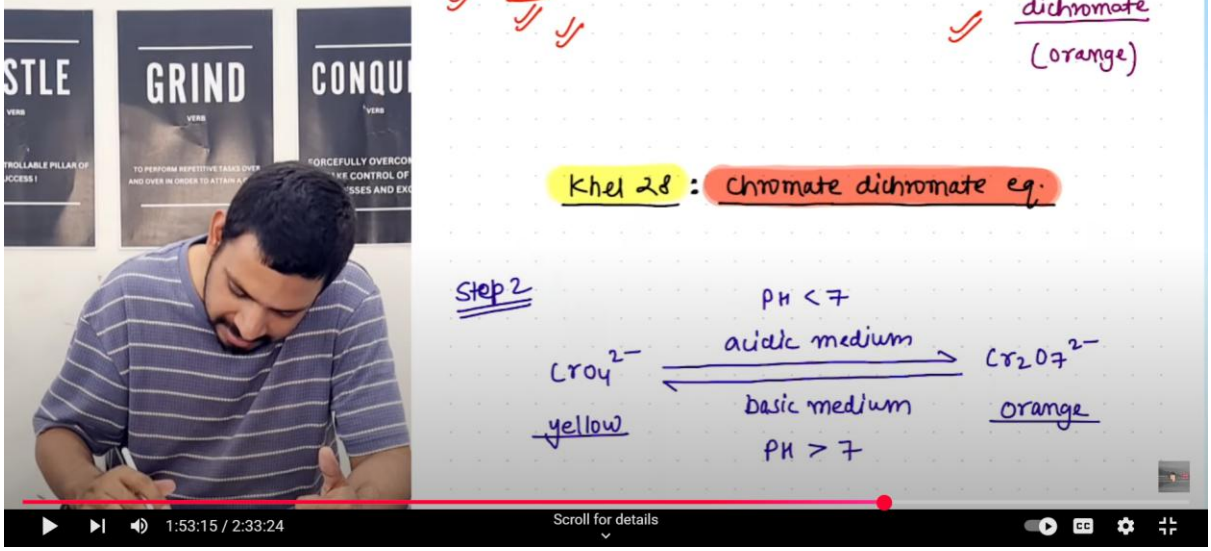
d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025

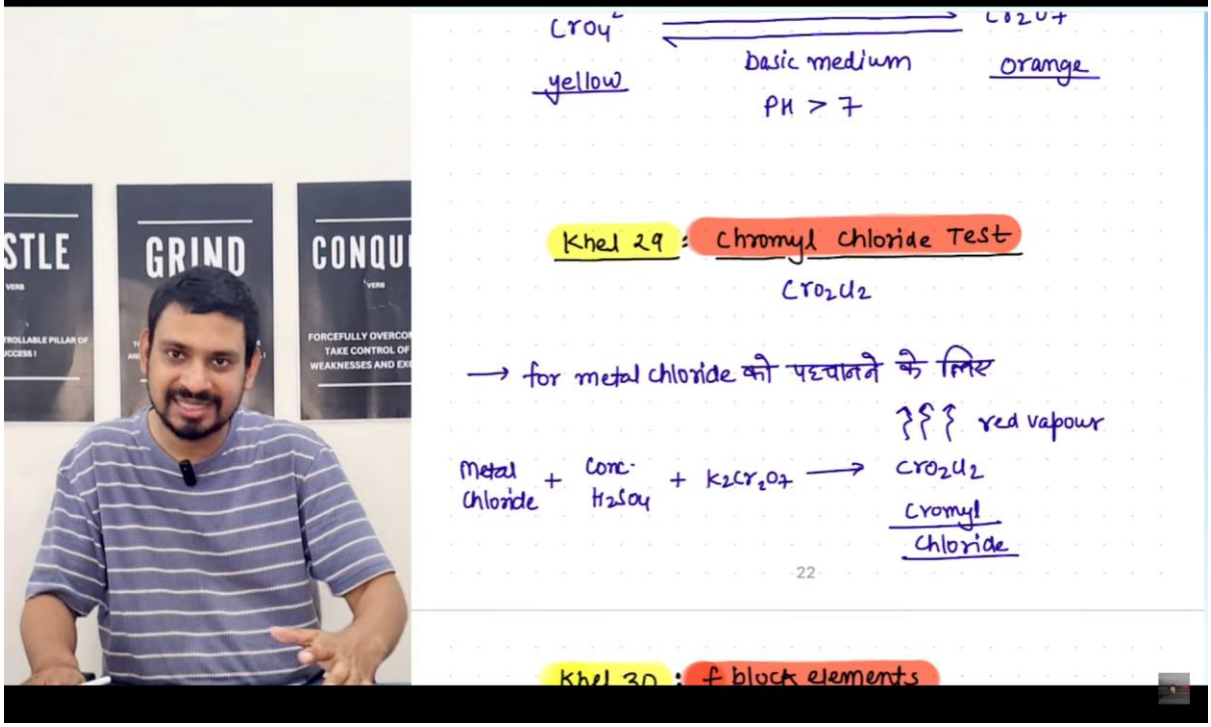


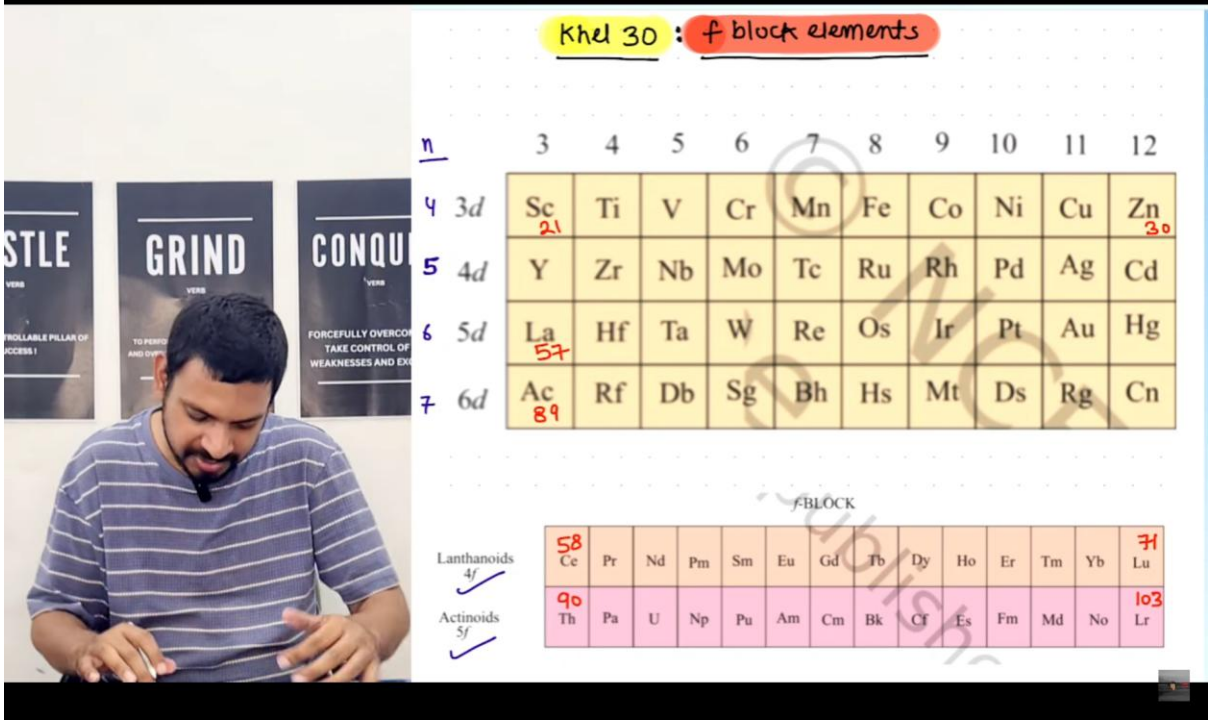
d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025



d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025





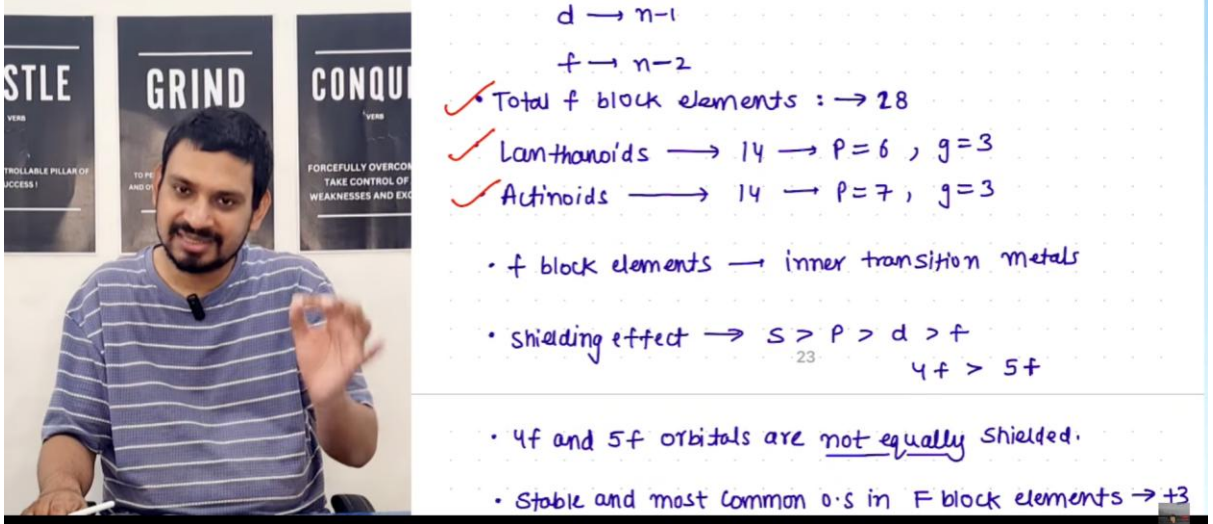


Khel 30 : f block elements

n		3	4	5	6	7	8	9	10	11	12
4	3d	Sc 21	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn 30
5	4d	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd
6	5d	La 57	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg
7	6d	Ac 89	Rf	Db	Sg	Bh	Hs	Mt	Ds	Rg	Cn

f-BLOCK

Lanthanoids 4f	58 Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	71 Lu
Actinoids 5f	90 Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	103 Lr

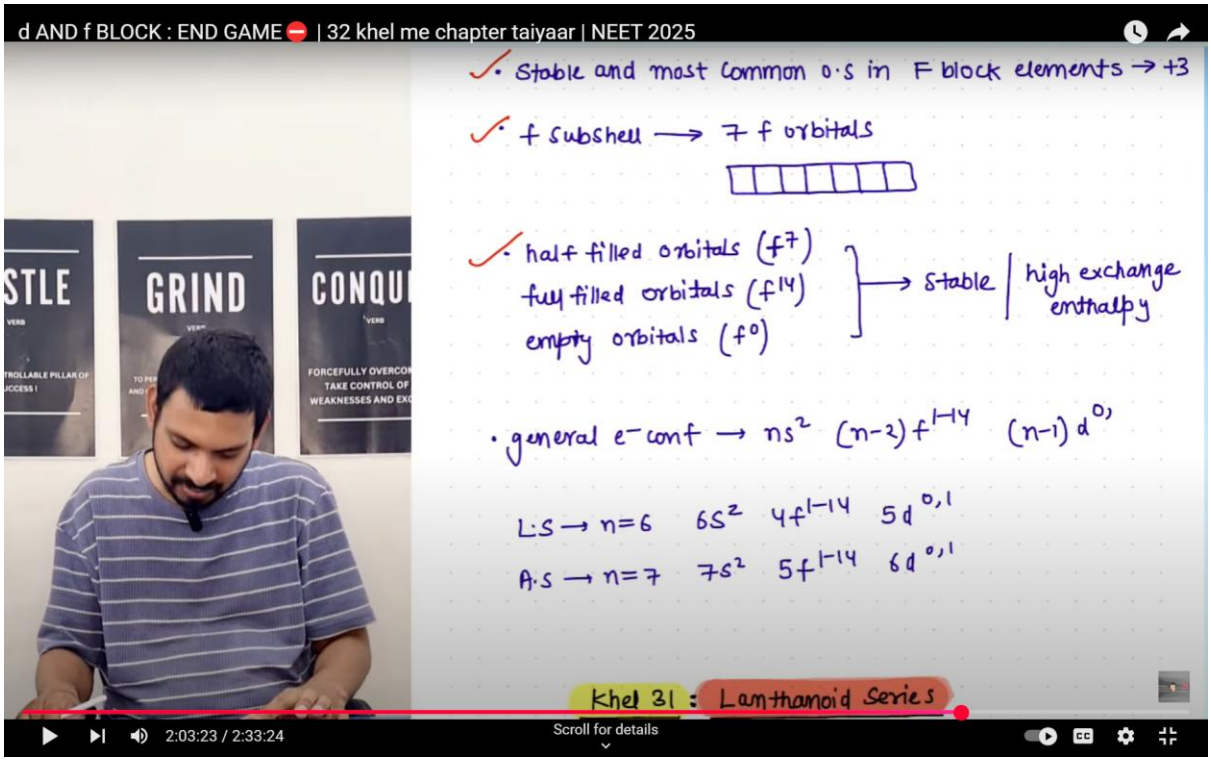


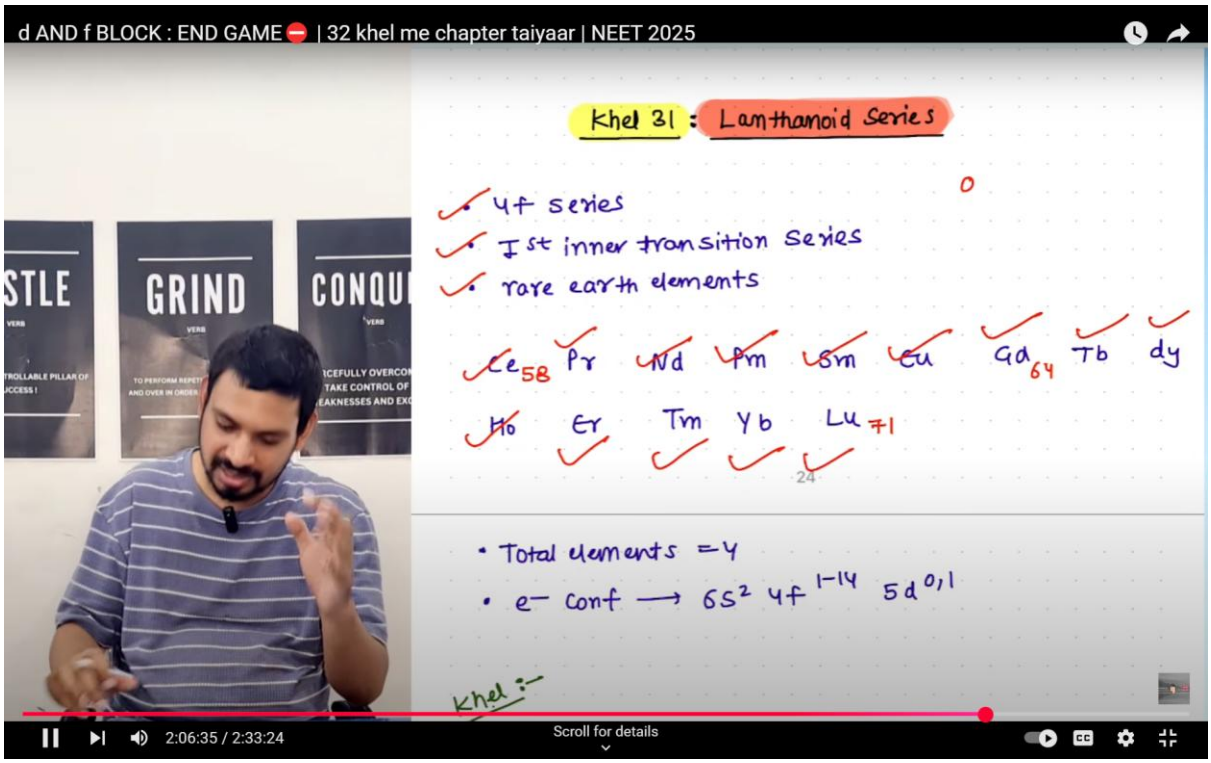
Lanthanoids 4f: 58 Ce Pr Nd Pm Sm Eu Gd Tb Dy Ho Er Tm Yb 71 Lu
Actinoids 5f: 90 Th Pa U Np Pu Am Cm Bk Cf Es Fm Md No 103 Lr

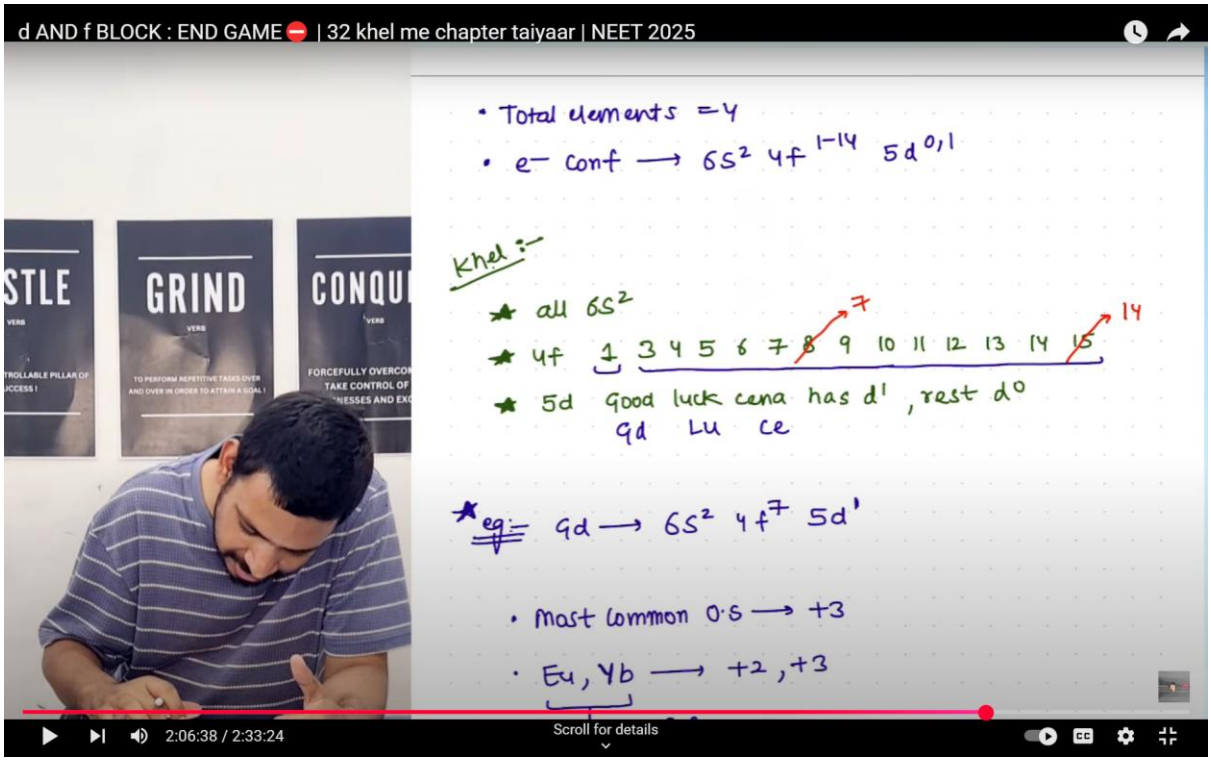
d ⟶ n−1

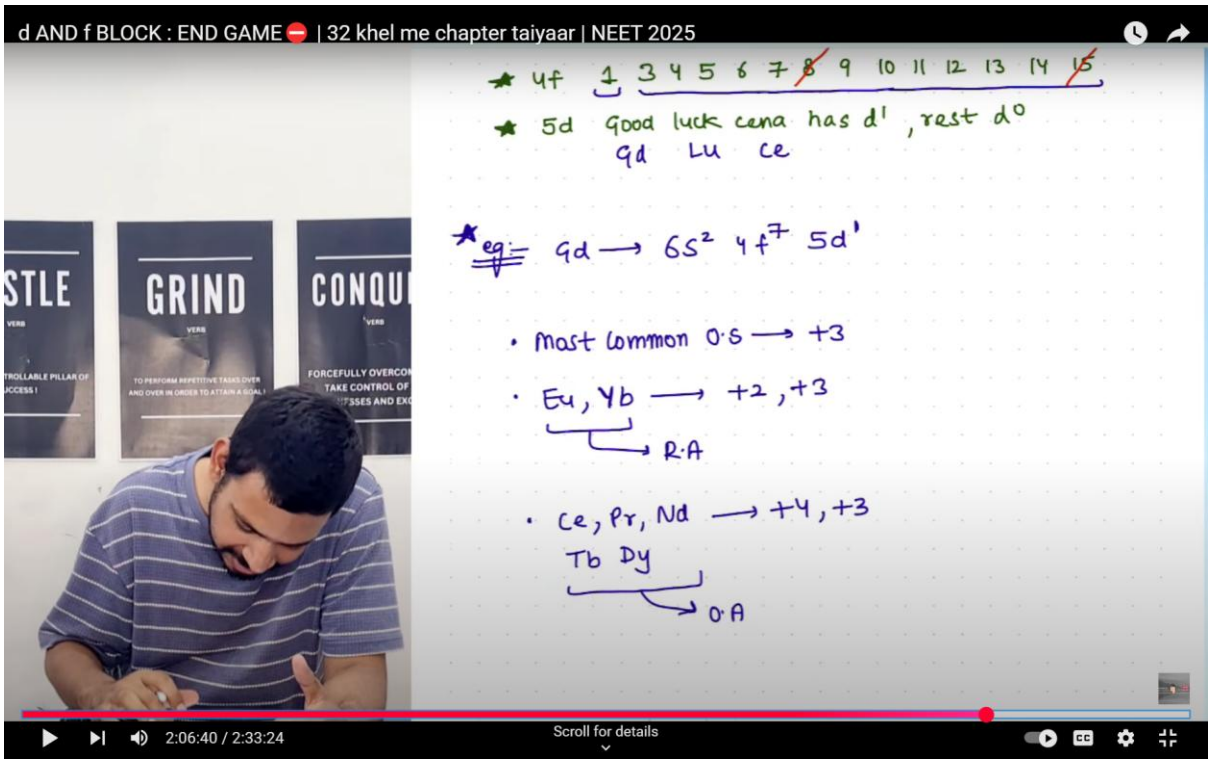
f ⟶ n−2

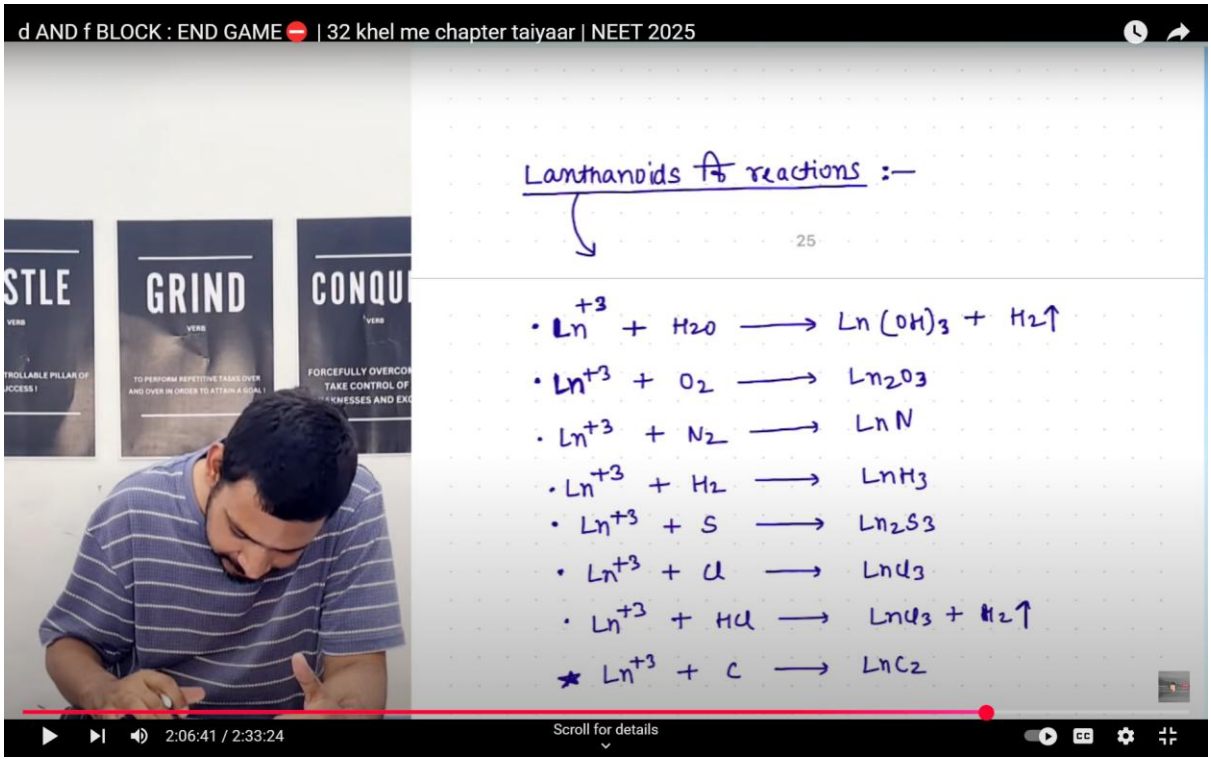
- Total f block elements : ⟶ 28
- Lanthanoids ⟶ 14 ⟶ p = 6 , g = 3
- Actinoids ⟶ 14 ⟶ p = 7 , g = 3
- f block elements ⟶ inner transition metals
- Shielding effect ⟶ s > p > d > f
  4f > 5f
- 4f and 5f orbitals are not equally shielded.
- Stable and most common o.s in F block elements → +3

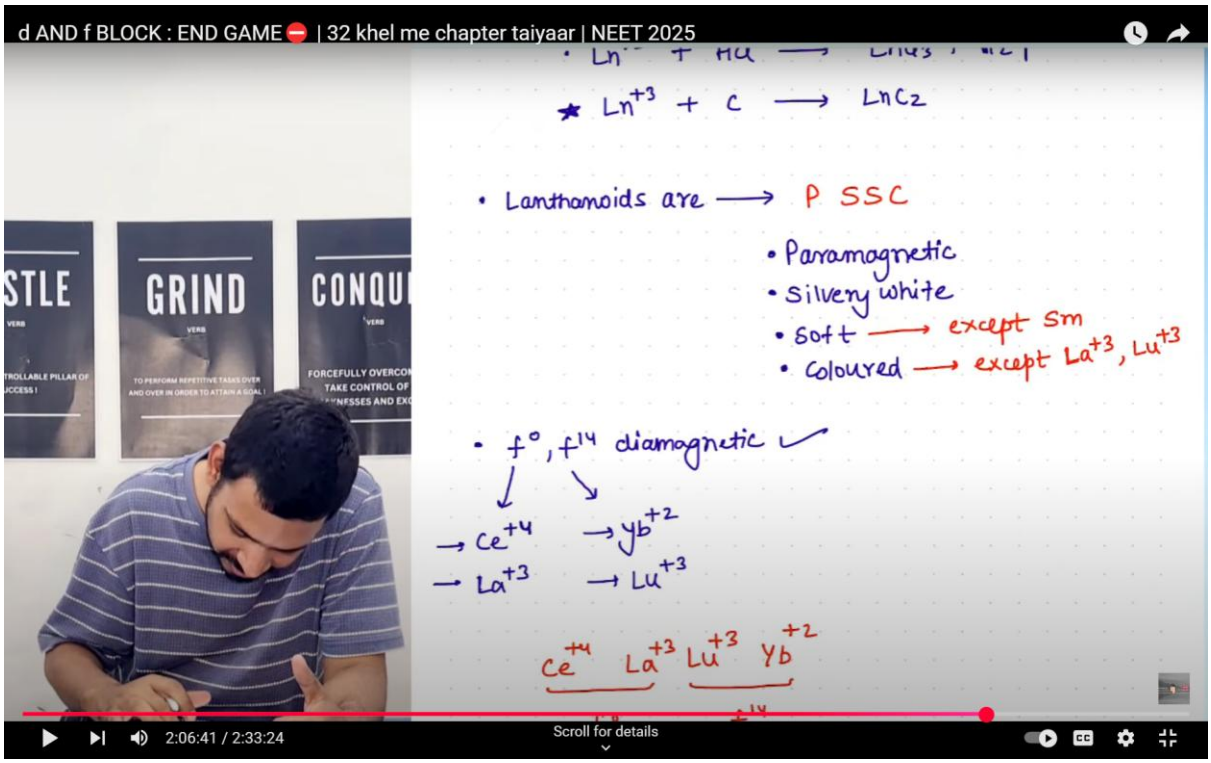

d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025
• Stable and most common o.s in F block elements → +3
• f subshell → 7 f orbitals
• half filled orbitals (f^7)
full filled orbitals (f^{14})
empty orbitals (f^0)
→ Stable | high exchange enthalpy
• general e⁻ conf → ns^2 $(n-2)f^{1-14}$ $(n-1)d^{0,}$
L.S → n=6 $6s^2$ $4f^{1-14}$ $5d^{0,1}$
A.S → n=7 $7s^2$ $5f^{1-14}$ $6d^{0,1}$
Khel 31 : Lanthanoid Series
2:03:23 / 2:33:24
Scroll for details

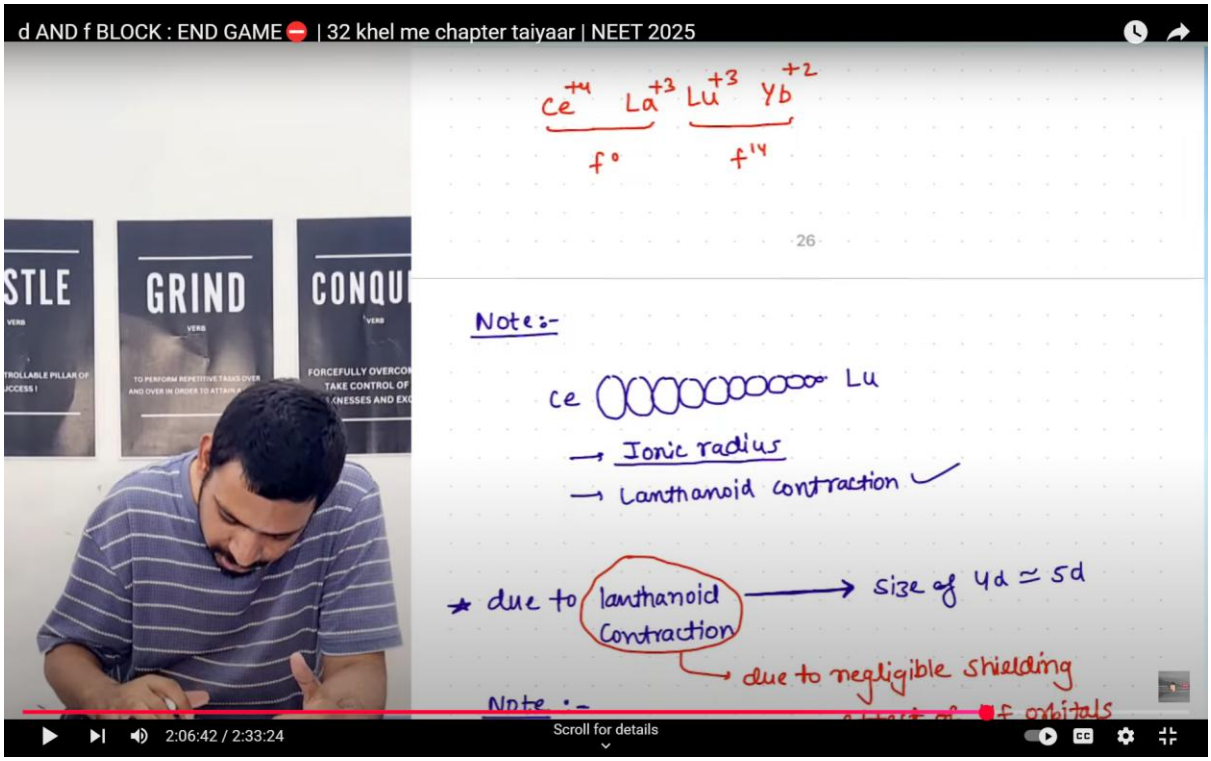

d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025
Khel 31 : Lanthanoid Series
• 4f series
• Ist inner transition series
• rare earth elements
Ce58 Pr Nd Pm Sm Eu Gd64 Tb dy
Ho Er Tm Yb Lu71
24
• Total elements = 14
• e⁻ conf → $6s^2$ $4f^{1-14}$ $5d^{0,1}$
Khel :-
2:06:35 / 2:33:24
Scroll for details

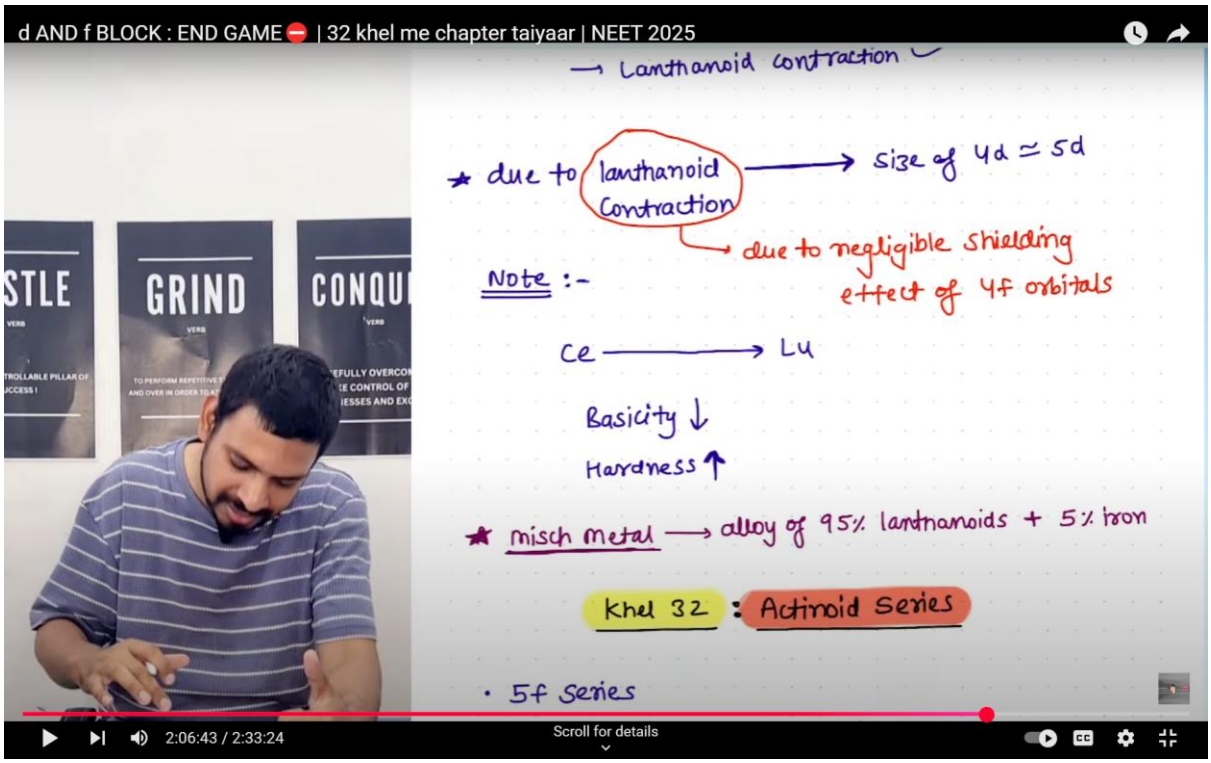

d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025
• Total elements = 14
• e⁻ conf → 6s² 4f¹⁻¹⁴ 5d⁰,¹
Khel :-
★ all 6s²
★ 4f 1 3 4 5 6 7 8 9 10 11 12 13 14 15
★ 5d Good luck cena has d¹, rest d⁰
Gd Lu Ce
★ eg:- Gd → 6s² 4f⁷ 5d¹
• Most common O.S → +3
• Eu, Yb → +2, +3
2:06:38 / 2:33:24
Scroll for details

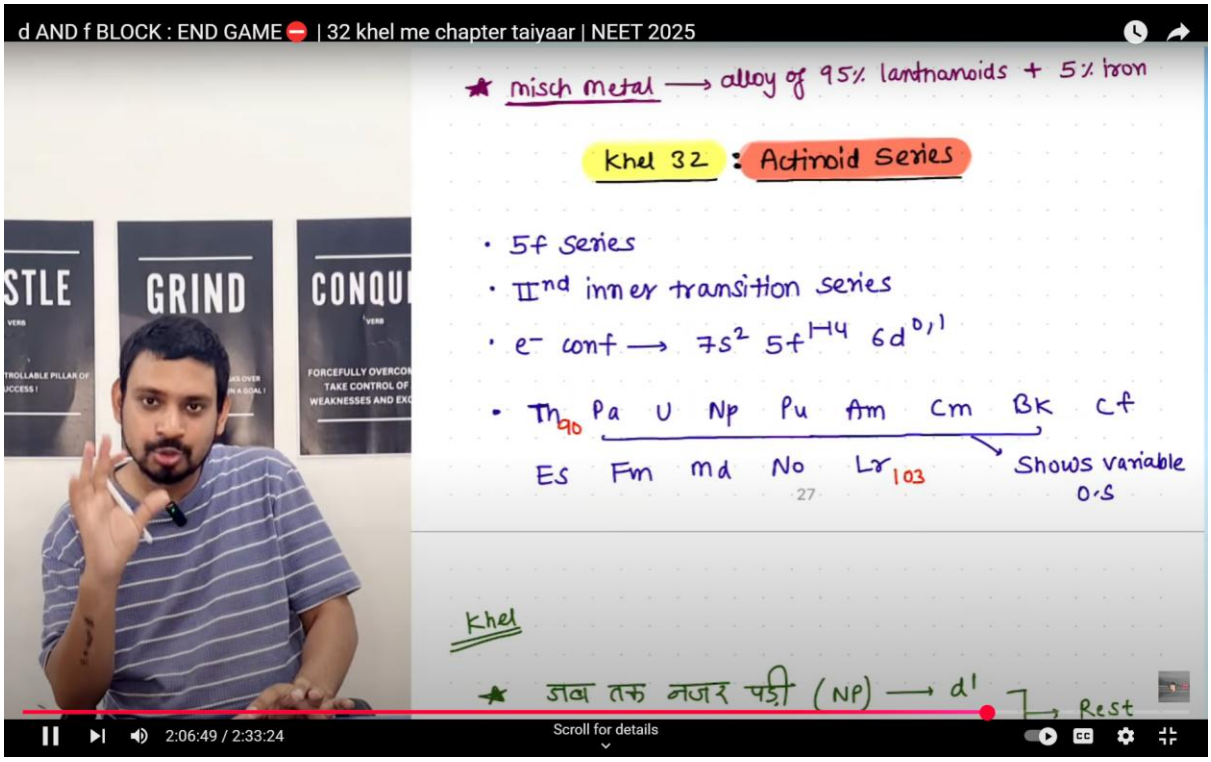

d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025
★ 4f 1 3 4 5 6 7 8 9 10 11 12 13 14 15
★ 5d Good luck cena has d¹, rest d⁰
Gd Lu Ce
★ eg:- Gd → 6s² 4f⁷ 5d¹
• Most common O.S → +3
• Eu, Yb → +2, +3
R.A
• Ce, Pr, Nd → +4, +3
Tb Dy
O.A
2:06:40 / 2:33:24
Scroll for details

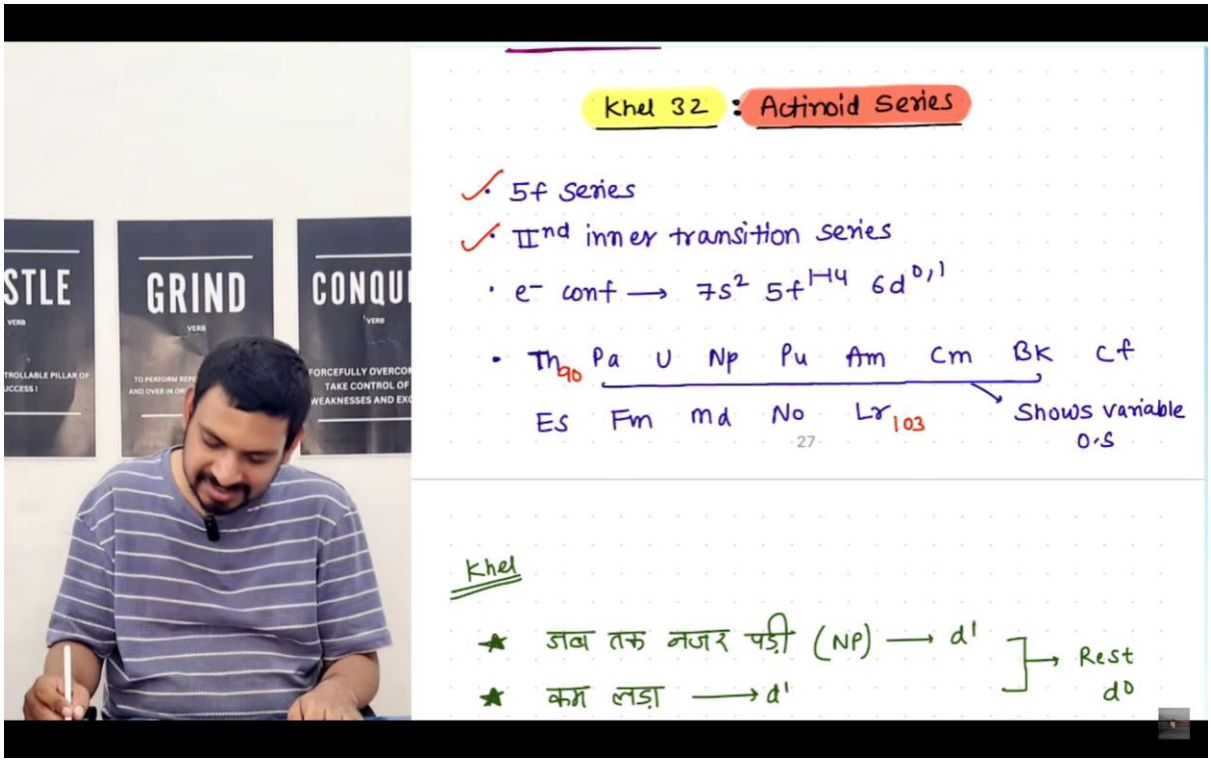

d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025
Lanthanoids reactions :-
25
$Ln^{+3} + H_2O \longrightarrow Ln(OH)_3 + H_2\uparrow$
$Ln^{+3} + O_2 \longrightarrow Ln_2O_3$
$Ln^{+3} + N_2 \longrightarrow LnN$
$Ln^{+3} + H_2 \longrightarrow LnH_3$
$Ln^{+3} + S \longrightarrow Ln_2S_3$
$Ln^{+3} + Cl \longrightarrow LnCl_3$
$Ln^{+3} + HCl \longrightarrow LnCl_3 + H_2\uparrow$
$Ln^{+3} + C \longrightarrow LnC_2$
2:06:41 / 2:33:24
Scroll for details

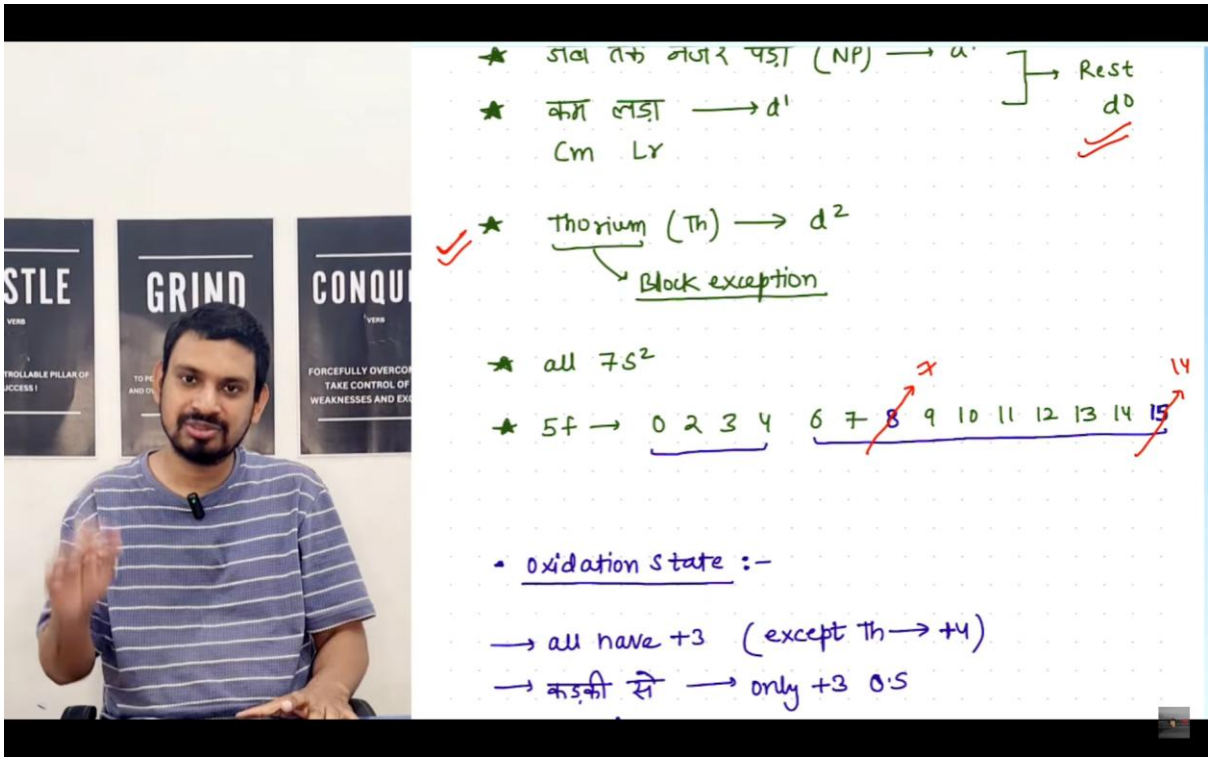

d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025
$Ln^{+3} + C \longrightarrow LnC_2$
Lanthanoids are → P SSC
Paramagnetic
Silvery white
Soft → except Sm
Coloured → except La^{+3}, Lu^{+3}
f^0, f^{14} diamagnetic
Ce^{+4} La^{+3} Lu^{+3} Yb^{+2}
2:06:41 / 2:33:24
Scroll for details

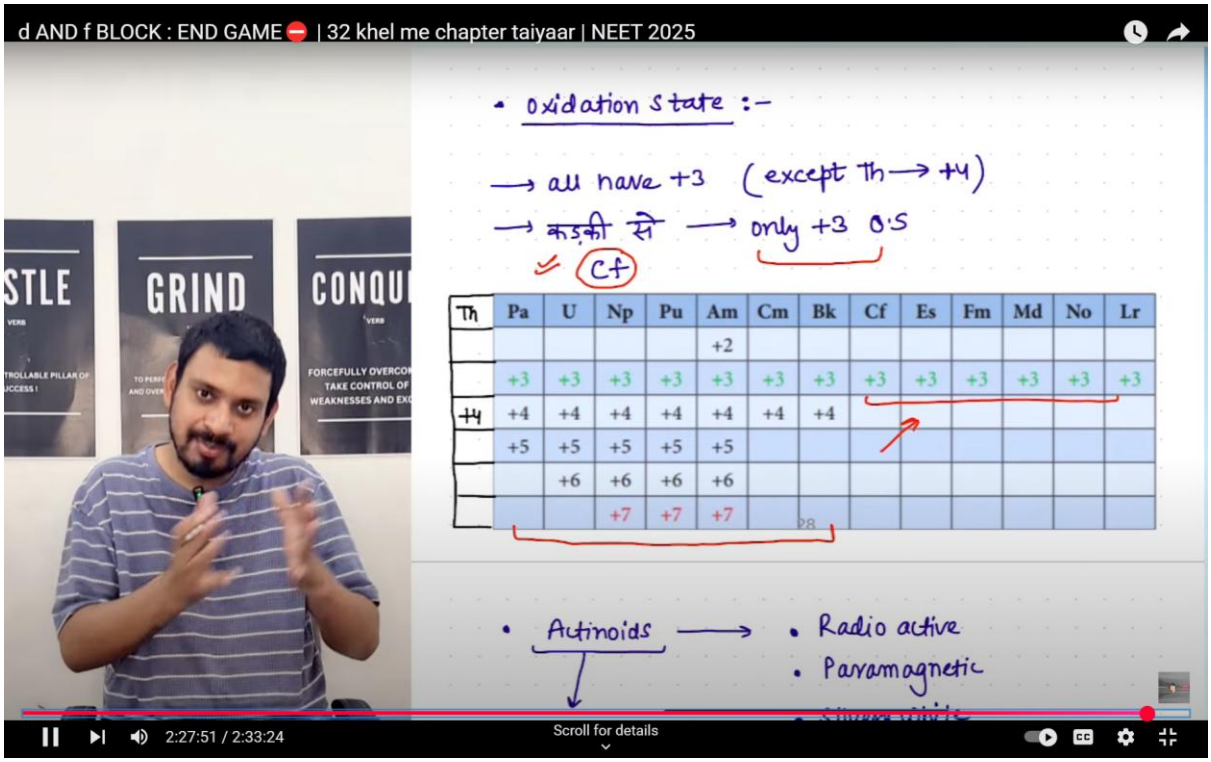

d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025
Ce+4 La+3 Lu+3 Yb+2
f0 f14
26
GRIND
Note:-
Ce Lu
→ Ionic radius
→ Lanthanoid contraction
★ due to lanthanoid Contraction → size of 4d ≃ 5d
due to negligible shielding
Note :-
2:06:42 / 2:33:24
Scroll for details


d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025
→ Lanthanoid contraction
★ due to lanthanoid Contraction → size of 4d ≃ 5d
due to negligible shielding
effect of 4f orbitals
Note :-
Ce → Lu
Basicity ↓
Hardness ↑
★ misch metal → alloy of 95% lanthanoids + 5% iron
Khel 32 : Actinoid Series
• 5f Series
2:06:43 / 2:33:24
Scroll for details


d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025
misch metal → alloy of 95% lanthanoids + 5% iron
Khel 32 : Actinoid Series
• 5f series
• IInd inner transition series
• e⁻ conf → 7s² 5f¹⁻¹⁴ 6d⁰,¹
• Th90 Pa U Np Pu Am Cm Bk Cf
Es Fm Md No Lr103
Shows variable O.S
27
Khel
जब तक नजर पड़ी (NP) → d¹
Rest
2:06:49 / 2:33:24
Scroll for details


Khel 32 : Actinoid Series
• 5f series
• IInd inner transition series
• e⁻ conf → 7s² 5f¹⁻¹⁴ 6d⁰,¹
• Th90 Pa U Np Pu Am Cm Bk Cf
Es Fm Md No Lr103
Shows variable O.S
27
Khel
जब तक नजर पड़ी (NP) → d¹
काम लड़ा → d¹
Rest
d⁰





Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr
					+2								
	+3	+3	+3	+3	+3	+3	+3	+3	+3	+3	+3	+3	+3
+4	+4	+4	+4	+4	+4	+4	+4						
	+5	+5	+5	+5	+5								
		+6	+6	+6	+6								
			+7	+7	+7								

d AND f BLOCK : END GAME ⛔ | 32 khel me chapter taiyaar | NEET 2025

	+5	+5	+5	+5	+5							
		+6	+6	+6	+6							
			+7	+7	+7							

28

- Actinoids →
  - Radio active
  - Paramagnetic
  - Silvery white
  - on exposure to alkali gets tarnished

+ HCl ✓

+ HNO_3 ✗ → due to the formation of Protective layer of oxide.

Note : Actinoids show more O.S than Lanthanoids

2:28:44 / 2:33:24

Scroll for details

alkali gets tarnished

↙ due to the formation of Protective layer of oxide.

Note : Actinoids show more O.S than Lanthanoids ✓

↓

Reason → lower energy difference b/w 5f and 6d then b/w 4f and 5d