



# ARJUNA NEET BATCH



## **CLASSIFICATION OF ELEMENTS & PERIODICITY IN PROPERTIES DPP-02**

The atomic numbers of elements of the second inner transition elements lie in the range of:-

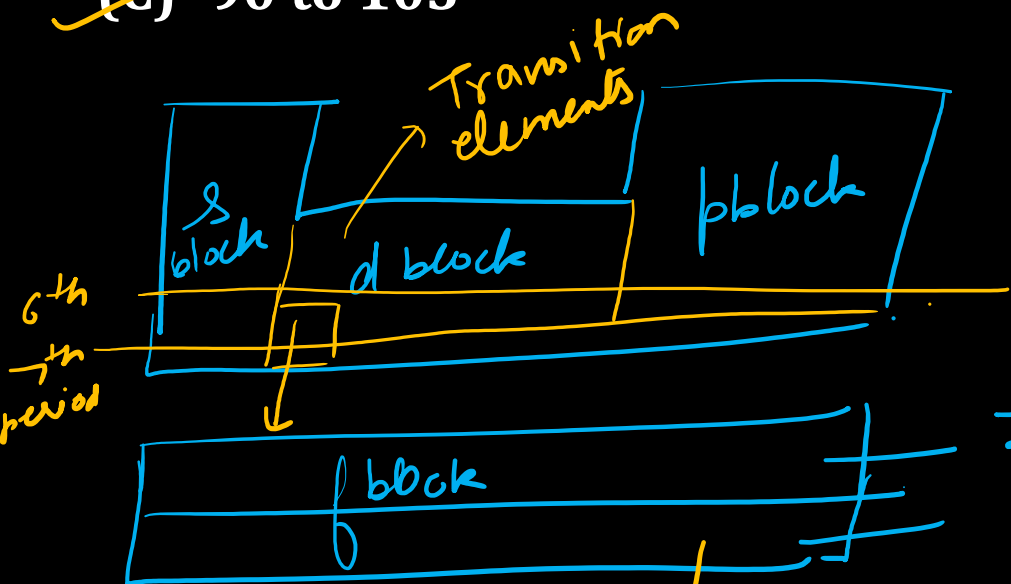


(A) 88 to 101 ✗

✓ (C) 90 to 103

(B) 89 to 102 ✗

(D) 91 to 104 ✗



1<sup>st</sup> inner transition series → Lanthanoid (Z = 58 to 71)

→ 2<sup>nd</sup> inner transition series → Actinoids (Z = 90 to 103).



Symbol for the element with atomic number 114 is



~~(A) Uuq~~

(C) Uqn ✗

(B) Unq ✗

(D) Unn ✗

114 → 1 → Un → U

1 → Un → U

4 → quad. → q

Last → ium

114 → UnUnquadium → Uuq



How many elements are present in 6th period?



(A) 18

(C) 32

(B) 8

(D) 64

Period no.      No. of Elements (magic no.)      no. of elements in a period:

1

2

2

8

3

8

4

18

5

18

6

32

7.

32

if Period no. is even =  $\frac{(n+2)^2}{2}$

$$n=6 \rightarrow \frac{(6+2)^2}{2} = \frac{64}{2} = 32 \quad \checkmark$$

if period no. (n) is odd =  $\frac{(n+1)^2}{2}$

$$\text{say, } n=5 \rightarrow \frac{(5+1)^2}{2} = 18$$



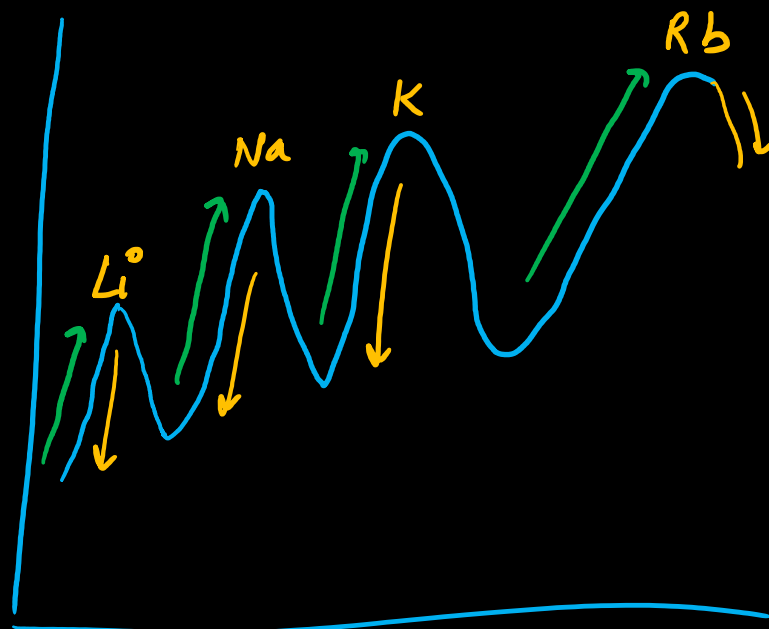
In Lothar Meyer's curve, the element at the peak of curve will be



- (A) F  
(C) Mg

- ~~(B) Na~~  
(D) Ne

Atomic  
Volume



Atomic  
mass.

Peak  $\rightarrow$  Group 1 elements  
Ascending order  $\rightarrow$  halogens and noble gases.  
(F) (Ne)

Descending order  $\rightarrow$  Group 2 element  
(Mg)



According to Mendeleev's periodic law, physical and chemical properties are function of



(A) Atomic number ✗

(C) Atomic volume

✓ (B) Atomic weight

(D) Number of neutrons

Mendeleev's periodic law states that physical and chemical properties of an element are periodic function of their atomic weights.



Uub is the symbol for the element with atomic number



(A) 102

(C) 110

(B) 108

~~(D) 112~~

Uub  $\rightarrow$  U  $\rightarrow$  un  $\rightarrow$  1  
U  $\rightarrow$  un  $\rightarrow$  1  
b  $\rightarrow$  bi  $\rightarrow$  2  
last  $\rightarrow$  ium

Uub  $\rightarrow$  UnUnbium  $\rightarrow$  112



With which block  $_{30}\text{Zn}$  belongs?

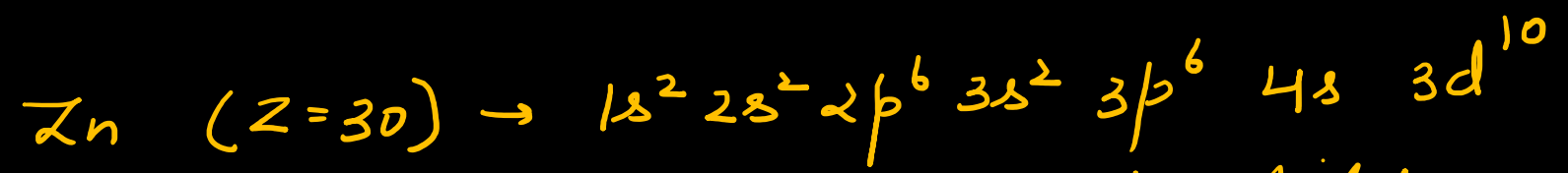


(A) s

(B) p

☒ (C) d

(D) f



Last electron enters into 3d orbital

$\therefore$  It belongs to d block





The alkali metal which is radioactive is



☒ (A) Fr

(C) Li ✗

(B) Al → Group-13

(D) Mg → Group-2

Alkali Group → Group 1

Li

Na

K

Rb

Cs

Fr → Francium → Radioactive.



The element which belongs with chalcogen family is



(A) N

~~(C) S~~

(B) P

(D) Cl

chalcogen family → Group 16 elements

↓

O → oxygen

S → sulphur

Se → selenium

Te → Tellurium

Po → Polonium.



In Mendeleev's Periodic Table, gaps were left for the elements to be discovered later. Which of the following elements found a place in the Periodic table later?



(A) Chlorine

(B) Silicon

(C) Oxygen

~~(D) Germanium~~

Mendeleev's left a number of gaps for unknown elements which he predicted to be discovered later.

He named them by placing prefix 'Eka' to the name of element present above it in periodic table.

Eka - aluminium → Gallium

Eka - silicon → Germanium.



At the time of Mendeleev, the number of elements known was



~~(A) 63~~

(C) 62

(B) 65

(D) 64

Mendeleev arranged known 63 elements in horizontal rows and vertical columns of a table in a order of increasing atomic weights.



The arrangement of elements in the Modern Periodic Table is based on their



- (A) increasing atomic mass in the period
- (B) increasing atomic number in the horizontal rows
- (C) increasing atomic number in the vertical columns
- (D) increasing atomic mass in the group

In Modern periodic table, elements are <sup>periodic</sup> function of their atomic number, so they placed on the basis of increasing atomic number in a period (horizontal row).





A metal 'M' is in the first group of the Periodic Table. What will be the formula of its oxide?  $\odot$

(A) MO

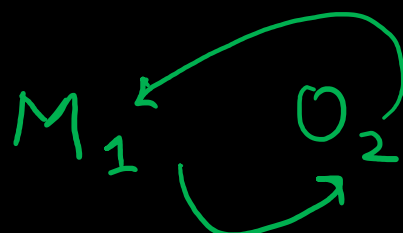
(C)  $M_2O_3$

☒ (B)  $M_2O$

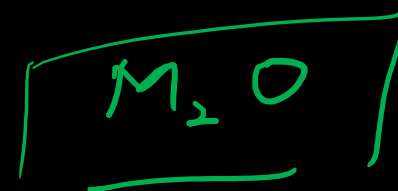
(D)  $MO_2$

M  $\rightarrow$  first group  $\rightarrow$  valency 1

O  $\rightarrow$  valency  $\rightarrow$  2



Exchange the  
valency



✓.



What is the other name for group 18<sup>th</sup> elements?



- ✓ (A) Noble gases      (B) Alkali metals → Group-1  
(C) Alkali earth metals → Group 2      (D) Halogens → Group 17

Group 18 elements → Inert gases → Noble gases.



Which group elements are called transition metals?



(A) Group number 1 to 2

(B) Group number 13 to 18

☒ (C) Group number 3 to 12

(D) Group number 1 to 8

s block  $\rightarrow$  Group 1-2

p block  $\rightarrow$  Group 13-18

d block  $\rightarrow$  Group 3-12.







Thank You