NCERT Class X Science Class: Chapter – 5. Periodic Classification of Elements – Part-1

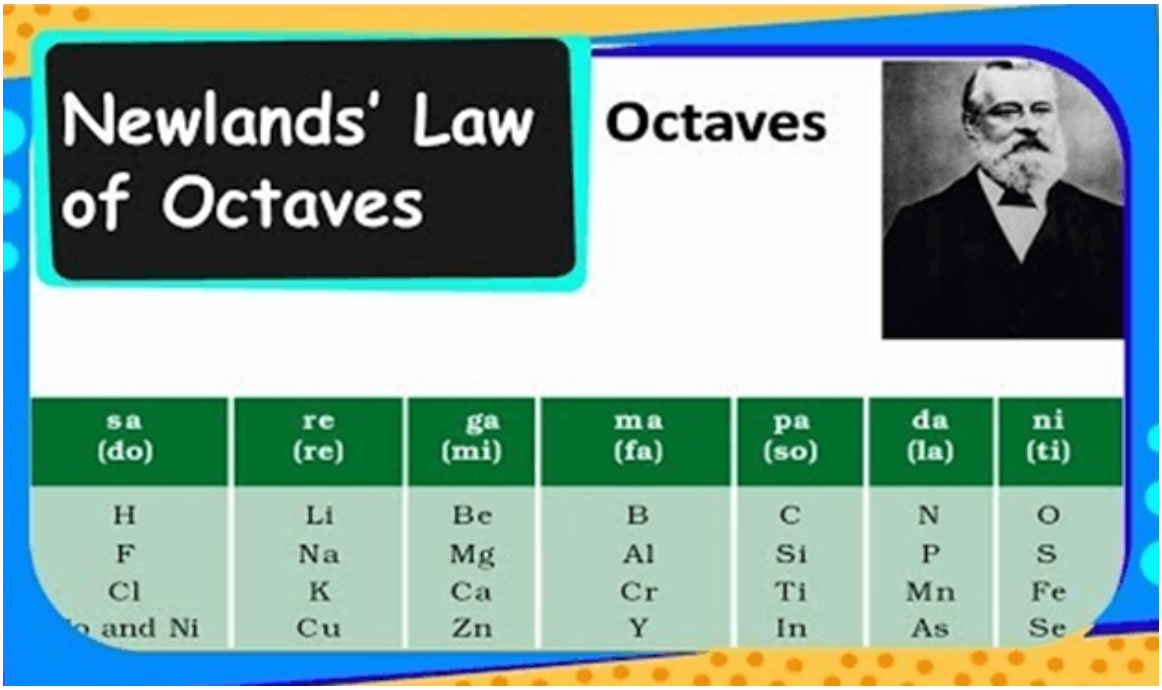
Multiple Choice Questions

Question 1:

Up to which element, the Law of Octaves was found to be applicable

1. Oxygen
2. Calcium
3. Cobalt
4. Potassium

Answer: B

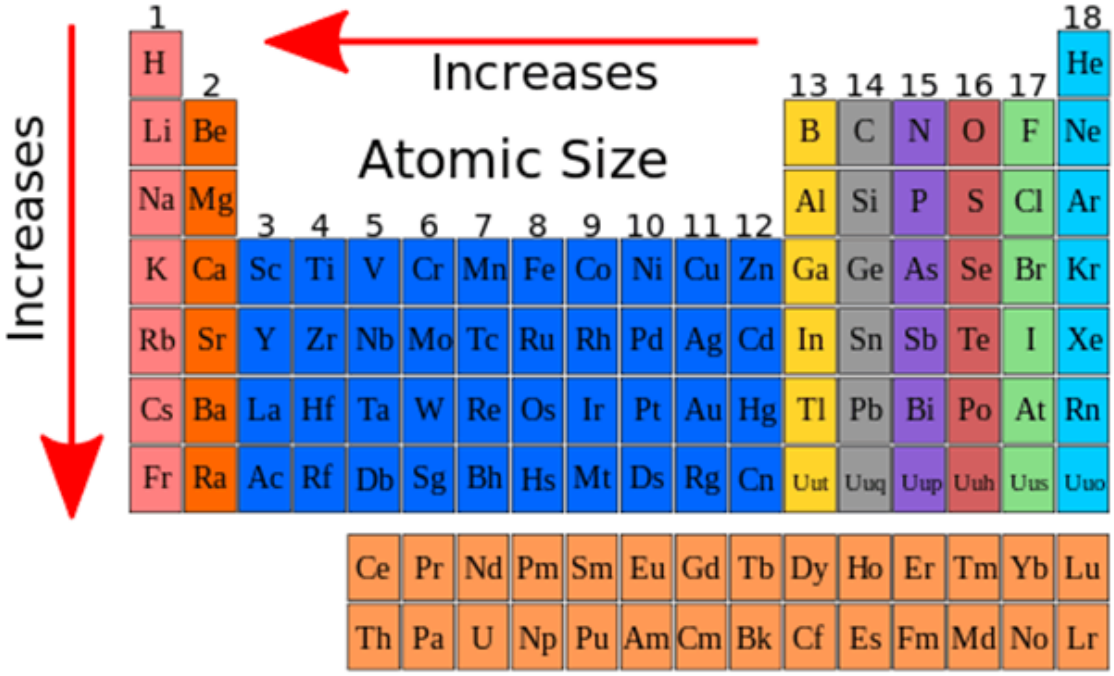


Question 2:

According to Mendeleev's Periodic Law, the elements were arranged in the periodic table in the order of

1. Increasing atomic number
2. Decreasing atomic number
3. Increasing atomic masses
4. Decreasing atomic masses

Answer: C



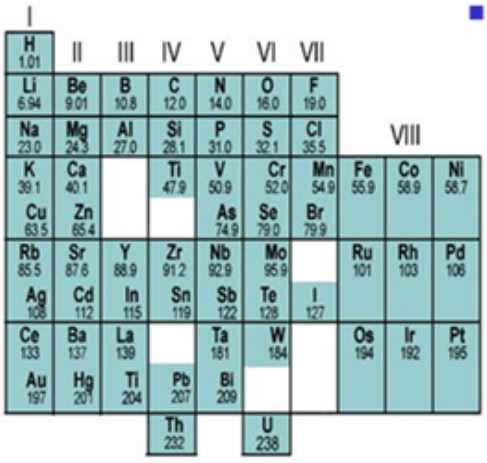
Question 3:

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

1. Germanium
2. Chlorine
3. Oxygen
4. Silicon

Answer: A

Mendeleev's Predictions



I	II	III	IV	V	VI	VII	VIII
H 1.01							
Li 6.94	Be 9.01	B 10.8	C 12.0	N 14.0	O 16.0	F 19.0	
Na 23.0	Mg 24.3	Al 27.0	Si 28.1	P 31.0	S 32.1	Cl 35.5	
K 39.1	Ca 40.1		Ti 47.9	V 50.9	Cr 52.0	Mn 54.9	Fe 55.9 Co 58.9 Ni 58.7
Cu 63.5	Zn 65.4			As 74.9	Se 79.0	Br 79.9	
Rb 85.5	Sr 87.6	Y 88.9	Zr 91.2	Nb 92.9	Mo 95.9		Ru 101 Rh 103 Pd 106
Ag 108	Cd 112	In 115	Sn 119	Sb 122	Te 128	I 127	
Ce 133	Ba 137	La 139		Ta 181	W 184		Os 194 Ir 192 Pt 195
Au 197	Hg 201	Tl 204	Pb 207	Bi 209			
			Th 232		U 238		

- He arranged 63 known elements
  - Predicted
    - three elements **had** yet to be discovered
    - what their properties would be
  - 16 years later a published chemist discovered the missing elements.
    - scandium, gallium, and germanium

Question 4:

Which of the following statement (s) about the Modern Periodic Table are incorrect

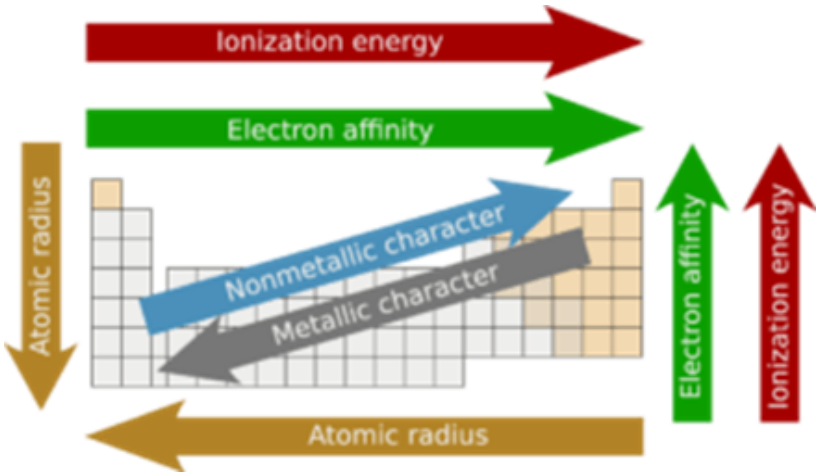
1. The elements in the Modern Periodic Table are arranged on the basis of their decreasing atomic number
2. The elements in the Modern Periodic Table are arranged on the basis of their increasing atomic masses
3. Isotopes are placed in adjoining group (s) in the Periodic Table
4. The elements in the Modern Periodic Table are arranged on the basis of their increasing atomic number
5. (i) only

6. (i) , (ii) and (iii)

7. (i) , (ii) and (iv)

8. (iv) only

Answer: B

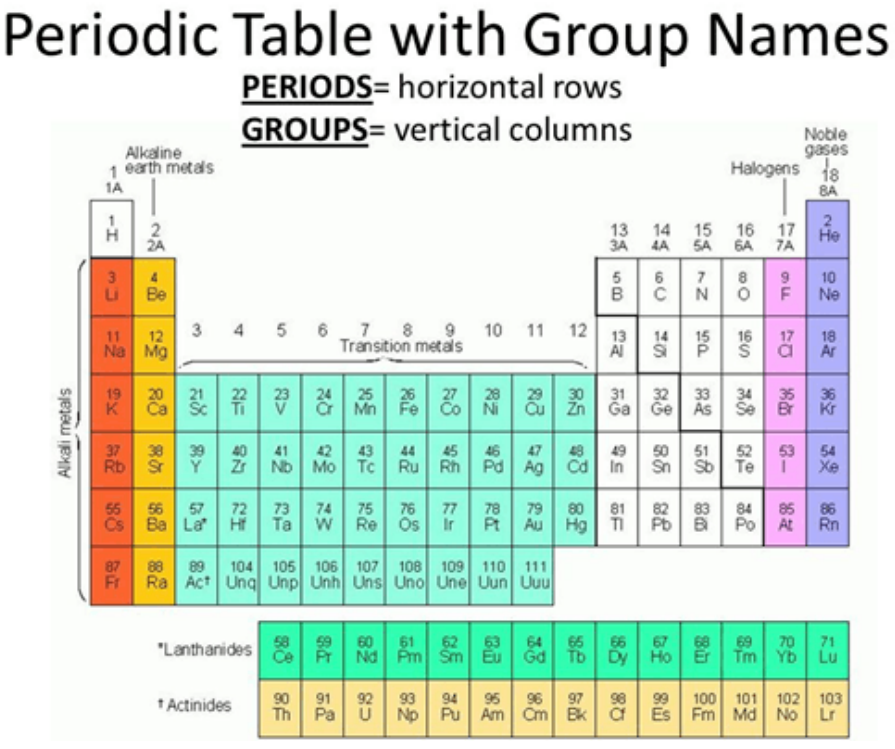


Question 5:

Which of the following statements about the Modern Periodic Table is correct:

1. It has 18 horizontal rows known as Periods
2. It has 7 vertical columns known as Periods
3. It has 18 vertical columns known as Groups
4. It has 7 horizontal rows known as Groups

Answer: C



Question 6:

Which of the given elements A, B, C, D and E with atomic number 2, 3,7, 10 and 30 respectively belong to the same period?

1. A, B, C
2. B, C, D
3. A, D, E
4. B, D, E

Answer: B