



CHEMISTRY

BOOKS - MCGROW HILL EDUCATION

CHEMISTRY (HINGLISH)

PERIODIC PROPERTIES

Elementary Question

1. Element 'X' has twelve protons in its nucleus.

To which group of the periodic table it will

belong?

A. 1

B. 2

C. 6

D. 8

Answer: B



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2. An element has 12 neutrons in its nucleus. To which group of the periodic table it will belong?

A. 1

B. 2

C. 6

D. Impossible to predict

Answer: D



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3. An element has atomic no. 16 It will belong to which period of the periodic table ?

A. 2

B. 3

C. 4

D. 5

Answer: B



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4. The element with the highest ionization energy is

A. lithium

B. hydrogen

C. helium

D. neon

Answer: D



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5. Amongst the following elements which has the largest atomic size ?

A. magnesium

B. phosphours

C. silicon

D. chlorine

Answer: A



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6. The element with the highest electron affinity in the periodic table is

A. iodine

B. chlorine

C. fluorine

D. oxygen

Answer: B



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7. Which amongst the following element can form amphoteric oxide ?

A. Mg

B. N

C. Al

D. C

Answer: C



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8. The element with atomic number 9 resembles in properties with the element having atomic number

A. 19

B. 17

C. 36

D. 27

Answer: B



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9. The element with the lowest IE_1 is :

A. sodium

B. cesium

C. barium

D. magnesium

Answer: B



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10. The elements of group 18 are called

A. halogens

B. noble gases

C. chalcogens

D. alkaline earth metals

Answer: B



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11. With the increases in atomic number in period

A. metallic character decreases

B. metallic character increases

C. chemical reactivity decreases

D. atomic size increases

Answer: A



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12. Which order of relative size amongst the following is incorrect ?

A. $LI < Na < K$

B. $C < Si < Al$

C. $Mg > Al < Na$

D. $F < Cl < Br$

Answer: C



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13. Atomic number and not the atomic weight is the fundamental property of a element was enunciated by ?

A. Dalton

B. Bohr

C. Mosley

D. Mendeleev

Answer: C



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14. Which of the following element is most electropositive ?

A. H

B. Mg

C. Ca

D. Si

Answer: C



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15. Elements in a period have same

A. number of valence electrons

B. valency

C. number of shells

D. volume

Answer: C



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16. The properties of the elements, as well as the formulae and properties of their compounds depends in a periodic manner on

the atomic weights of the elements. This periodic law was given by

A.

B. John A.R. New lands

C. Dobernier

D. D.I Mendeleev

Answer: D



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17. Elements belonging to the same group have similar properties because

A. they have similar electronic

configuration of the outermost shell

B. their atomic numbers go on increasing

as we move down the group

C. all of them are metallic elements

D. none of the above

Answer: A

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18. With the increase in size in a group

- A. metallic character decreases
- B. metallic character increases
- C. chemical reactivity decreases
- D. chemical reactivity remains same

Answer: B

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19. The atoms of elements belonging to the same group of periodic table have the same

A. number of protons

B. number of electrons

C. number of neutrons

D. number of electrons in the outermost shell

Answer: D



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20. Which order of relative size amongst the following is incorrect ?



Answer: B



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21. Which of the following is the correct order of relative sizes?

A. $I^- > I^+ > I$

B. $I^- > I > I^+$

C. $I > I^+ > I^-$

D. $I^+ > I^- > I$

Answer: B



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22. Which one of the following has the smallest size ?

A. AI

B. AI^+

C. AI^{+2}

D. AI^{+3}

Answer: D



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23. On moving horizontally across a period, the number of electrons in the outermost shell increases from - to -,

A. 2,8

B. 2,18

C. 1,8

D. 1,18

Answer: C



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24. The element with the smallest size in the group is

A. lithium

B. fluorine

C. sodium

D. oxygen

Answer: A



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25. The element with the smallest size in the group 13 is

A. beryllium

B. carbon

C. aluminium

D. boron

Answer: D



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26. Which of the following is not a noble gas ?

A. helium

B. xenon

C. radium

D. radon

Answer: C



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27. Which of the following properties generally decreases along a period?

A. ionisation energy

B. electron affinity

C. metallic character

D. valency

Answer: C



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28. The element with lowest electron affinity is

A. iodine

B. chlorine

C. fluorine

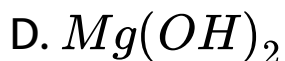
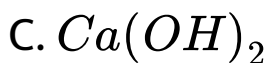
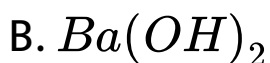
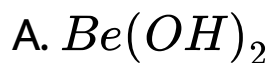
D. bromine

Answer: A



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29. Which of the following hydroxides is most basic ?



Answer: B



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30. The element with atomic number 9 belongs to _____ group.

A. 7

B. 17

C. 9

D. 1

Answer: B



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31. The element with smallest size in the 4th period is

A. calcium

B. potassium

C. rubidium

D. bromine

Answer: D



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32. The element of the group 16 are also called

_____ .

A. halogens

B. noble gases

C. chalcogens

D. alkaline earth metals

Answer: C



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33. The most metallic element in the fifth period is

A. silver

B. rubidium

C. gold

D. rhodium

Answer: B



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34. Two elements that have similar properties because they have the same number of valence electrons are

A. C and Cl

B. Ca and Ga

C. Si and S

D. S and O

Answer: D



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35. The element with lowest IE_1 is

A. sodium

B. cesium

C. barium

D. magnesium

Answer: C



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36. Which of the following is not a noble gas ?

A. helium

B. neon

C. radium

D. radon

Answer: C



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37. The elements in the middle of the periodic table are called

A. metalloids

B. transition elements

C. rare earth element

D. noble gases

Answer: B



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38. The general name of the element of 17th group are

A. hydrides

B. halogens

C. chalcogens

D. noble gases

Answer: B



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39. The lightest metal is

A. Li

B. Mg

C. Na

D. Ca

Answer: A



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40. Elements belonging to the same group have similar chemical properties because

A. they are all metallic elements

B. they have similar electrons configuration

C. atomic number increases on moving

down the group

D. none of these

Answer: B



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41. Law of Traid was proposed by

A. Newland

B. Gay Lussac

C. Mendelew

D. Dobereiner

Answer: A



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42. Which amongst the following are called

Magic numbers ?

A. 2,8,8,18

B. 2,8,8,32

C. 2,8,18,32

D. None of these

Answer: C



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43. Third period of the periodic table contains the following number of elements.

A. 2

B. 18

C. 8

D. 32

Answer: C



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44. An element has electrons configuration 2,8,4. It belong to which group and period of the Periodic Table

A. 2,4

B. 14,3

C. 14,4

D. 3,14

Answer: B



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45. The element with electronic configuration

2,8,6 is

- A. metallic with valency 2
- B. non-metallic with valency 2
- C. metalloid with valency 2
- D. none of these

Answer: B



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46. The elements belonging to which group are called representative elements ?

A. gp 1 and 2

B. gp 3 to 12

C. go 13 to 18

D. Element lying at the bottom of periodic
table

Answer: A



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47. Modern periodic table by Mosley states that

A. properties of element are periodic function of Atomic mass

B. properties of element depend upon number of neutrons

C. properties of element depend upon number of reaction

D. properties of elements are periodic
function of atomic number

Answer: D



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48. Element 'A' has Electronic configuration 2,7
'B' has configuration 2,8,6, 'C' has configuration
2,8,8 while 'D' has 2,8,7. Which element will
show similar chemical properties?

A. A and C

B. A and D

C. B and C

D. B and D

Answer: B



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49. Which amongst the following is most non-metallic ?

A. nitrogen

B. lithium

C. oxygen

D. hydrogen

Answer: C



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50. Which amongst the following is not an alkaline earth metal ?

A. Mg

B. Ba

C. Fr

D. Sr

Answer: C



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Higher Order Thinking Question

1. Who developed the long form of periodic table ?

A. Neils Bohr

B. Mosley

C. Mendeleev

D. Lothar Meyer

Answer: B



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2. The most important active step in the development of periodic table was taken by

Mendeleev

Dalton

Avogadro

Cavendish.

A. Medeleev

B. Dalton

C. Avogadro

D. Cavendish

Answer: A



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3. Elements of which family forms anions most readily ?

A. Halogens

B. Alkali metals

C. Oxygen

D. Nitrogen

Answer: A



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4. Of the following pairs, the one containing example of metalloids in the periodic table is

- A. sodium and potassium
- B. fluorine and chlorine
- C. calcium and magnesium
- D. boron and silicon

Answer: D



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5. Variable valency in general, exhibited by

A. gaseous elements

B. s - block elements

C. non - metals

D. transition elements

Answer: D



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6. In Lothar Meyer curve, the halogens occupy positions on the

- A. descending portion of the curve
- B. ascending portion of the curve
- C. Peak position of the curve
- D. no fixed position on the curve

Answer: B



7. Increases order of atomic radii is



Answer: C



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8. All the s - block elements of the periodic table and placed in the groups

A. 17 and 18

B. 15 and 16

C. 1 and 2

D. 18

Answer: C



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9. If the atomic number of an element is 13, it will be placed in the periodic table in

A. Group 1

B. Group 3

C. Group 13

D. Group 11

Answer: C



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10. Which element of the second period form most acidic oxide ?

A. Boron

B. Carbon

C. Nitrogen

D. Flurine

Answer: C



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