

MULTIPLE CHOICE QUESTION

Newlands relation is called

- (a) Musical Law
- (b) Law of Octaves
- (c) Periodic Law
- (d) Atomic Mass Law

Answer

Answer: b

2. Upto which element, the Law of Octaves was found applicable?

- (a) Oxygen
- (b) Calcium
- (c) Cobalt
- (d) Potassium

Answer

Answer: b

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?

- (a) Chlorine
- (b) Silicon
- (c) Oxygen
- (d) Germanium

Answer

Answer: d

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

- (a) 63
- (b) 65
- (c) 62
- (d) 64

Answer

Answer: a

5. The properties of eka-aluminium predicted by Mendeleev are the same as the properties of later discovered element:

- (a) Scandium
- (b) Germanium
- (c) Gallium
- (d) Aluminium

Answer

Answer: c

6. An atom of an element has the electronic configuration 2,8,2. To which group does it belong?

- (a) 4th group
- (b) 6th group
- (c) 3rd group
- (d) 2nd group

Answer

Answer: d

7. 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

Answer

Answer: b

8. Where would you locate the element with electronic configuration 2, 8 in the Modern Periodic Table?

- (a) Group 8
- (b) Group 2
- (c) Group 18
- (d) Group 10

Answer

Answer: c

9. Element 'X' forms a chloride with the formula XCl_2 , which is a solid with high melting point. X would most likely be in the same group of the periodic table as:

- (a) Si
- (b) Mg
- (c) Al
- (d) Na

Answer

Answer: b

10. Which of these belong to the same period?

Element	A	B	C
Atomic number	2	10	5

- (a) A, B
- (b) B, C
- (c) C, A
- (d) A, B and C

Answer/ Explanation

Answer: b

Explanation: Reason. B= 10 (2, 8), C = 5 (2, 3) Both have 2 periods.

11. Carbon belongs to the second period and Group 14. Silicon belongs to the third period and Group 14. If atomic number of carbon is 6, the atomic number of silicon is

- (a) 7
- (b) 14
- (c) 24
- (d) 16

Answer

Answer: b

12. Pick out the chemically most reactive elements from the given triads.

Li, Na, K F, Cl, Br

- (a) Li and F
- (b) Li and Br
- (c) K and F
- (d) K and Br

Answer

Answer: c

13. What is the atomic number of element of period 3 and group 17 of the Periodic Table?

- (a) 10
- (b) 4
- (c) 17
- (d) 21

Answer

Answer: c

14. Which one of the following statements is not correct about the trends in the properties of the elements of a period on going from left to right?

- (a) The oxides become more acidic
- (b) The elements become less metallic
- (c) There is an increase in the number of valence electrons
- (d) The atoms lose their electrons more easily

Answer

Answer: d

15. The elements A, B and C belong to groups 1, 14 and 17 respectively of the Periodic Table. Which two elements will form ionic compounds?

- (a) A and B
- (b) A and C

- (c) B and C
- (d) None

Answer

Answer: b

16. An element X from group 2 of the Periodic Table reacts with Y from group 17 to form a compound. Give the formula of the compound.

- (a) XY_2
- (b) XY
- (c) X_2Y
- (d) $(XY)_2$

Answer

Answer: a

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

- (a) MO
- (b) M_2O
- (c) M_2O_3
- (d) MO_2

Answer

Answer: b

18. Name the neutral atom in the Periodic Table which has the same number of electrons as K^+ and Cl^- .

- (a) Helium
- (b) Argon
- (c) Neon
- (d) Krypton

Answer

Answer: b

19. An element X combines with oxygen to form an oxide XO. This oxide is electrically conducting. Write the formula of the compound formed when X reacts with chlorine.

- (a) XCl_3
- (b) XCl
- (c) XCl_2
- (d) XCl_5

Answer

Answer: c

20. An element X has mass number 40 and contains 21 neutrons in its atom. To which group of the Periodic Table does it belong?

- (a) Group 1
- (b) Group 4
- (c) Group 2
- (d) Group 3

Answer/ Explanation

Answer: a

Explanation: Reason. $e = 19$ (2, 8, 8, 1)

21. Consider the following elements

${}_{20}\text{Ca}$, ${}_8\text{O}$, ${}_{18}\text{Ar}$, ${}_{16}\text{S}$, ${}_4\text{Be}$, ${}_2\text{He}$

Which of the above elements would you expect to be in group 16 of the Periodic Table?

- (a) ${}_{20}\text{Ca}$ and ${}_{16}\text{S}$
- (b) ${}_{20}\text{Ca}$ and ${}_8\text{O}$
- (c) ${}_{18}\text{Ar}$ and ${}_{16}\text{S}$
- (d) ${}_8\text{O}$ and ${}_{16}\text{S}$

Answer

Answer: d

22. An element 'A' belongs to the third period and group 16 of the Periodic Table. Find out the valency of A.

- (a) Valency = 6
- (b) Valency = 2
- (c) Valency = 1
- (d) Valency = 3

Answer

Answer: b

23. Which one of the following statements is not correct about the trends in the properties of the elements of a group on going down in a group?

- (a) The chemical reactivity of metals increases.
- (b) The metallic character of elements increases.
- (c) The size of the atom increases.
- (d) The valence electrons increase.

Answer

Answer: d

24. Which of the following set of elements is written in order of their increasing metallic character?

- (a) Na Li K
- (b) C Q N
- (c) Mg Al Si
- (d) Be Mg Ca

Answer

Answer: d

25. The atom of an element has electronic con-figuration 2, 8, 7. To which of the following elements would it be chemically similar?

- (a) N(7)
- (b) P(15)
- (c) Na(11)
- (d) F (9)

Answer/ Explanation

Answer: d

Explanation: Reason. Both have same number of valence electrons
