CHEMISTRY CLASS 11 BATCH

SOME BASIC CONCEPT OF CHEMISTRY — DPP-01

1. What is matter?
(1) Anything which has mass but does not occupies space
(2) Anything which has mass and occupies space
(3) Anything which neither has mass nor occupies space
(4) Anything which does not have mass but it occupies space

2. Which of the following statement is correct?
(1) Liquids have definite volume but not the definite shape
(2) Gases have neither definite volume nor definite shape
(3) Both A and B
(4) None of the above

3. In gaseous state, molecules can move
(1) Only in one direction
(2) Only in fixed path
(3) Randomly in all directions
(4) Upward and downward only

4. The gases are highly compressible because
(1) the molecules move randomly
(2) the molecular force of attraction is very weak
(3) The separation between molecules is very large
(4) The separating force is strong

5. Which state has maximum intermolecular force?
(1) Solid (2) Liquid
(3) Gas (4) Plasma

6. An atoms has 26 electrons and its atomic weight is 56. The number of neutrons in the nucleus of the atom will be
(1) 26
(2) 30
(3) 36
(4) 56

7. An element X has the following isotopic composition:
^{200}X : 90%
^{199}X : 8.0%
^{202}X : 2.0%
The weighted average atomic mass of the naturally occurring element X is closest to
(1) 199 amu (2) 202 amu
(3) 201 amu (4) 200 amu

8. Which of the following atom has more electrons than neutrons?
(1) C (2) F^-
(3) O^{2-} (4) Al^{3+}

9. Which property of an element is always a whole number?
(1) Atomic weight
(2) Equivalent weight
(3) Atomic number
(4) Atomic volume

10. Atomic weight of chlorine is 35.5. It has two isotopes of atomic weight 35 and 37. What is the percentage of the heavier isotope in the sample?
(1) 5 (2) 10
(3) 25 (4) 20

11. B has two isotopes ^{10}B (19%) and ^{11}B (81%). The atomic mass of B is
(1) 10.81 (2) 11.5
(3) 11 (4) 10.5

12. If an element Z exist in two isotopic form Z^{50} and Z^{52}. The average atomic mass of Z is 51.7. Calculate the abundance of each isotopic forms
(1) Z^{50} (15%), Z^{52} (85%)
(2) Z^{50} (85%), Z^{52} (15%)
(3) Z^{50} (5%), Z^{52} (95%)
(4) Z^{50} (95%), Z^{52} (5%)

13. The ratio between the neutrons in C and Si with respect to atomic masses 12 and 28 is
(1) 2:3 (2) 3:2
(3) 3:7 (4) 7:3

14. Which is not a basic postulate of Dalton's atomic theory?
(1) Atoms are neither created nor destroyed in a chemical reaction.
(2) Different elements have different types of atoms.
(3) Atoms of an element may be different due to presence of isotopes.
(4) Each element is composed of extremely small particles called atoms

15. Chlorine atom differs from chloride ions in the number of
(1) Proton (2) Neutron
(3) Electrons (4) Protons and electrons

16. The nitrogen atom has 7 protons and 7 electrons, the nitride ion (N^{3-}) will have
(1) 7 protons and 10 electrons
(2) 4 protons and 7 electrons
(3) 4 protons and 10 electrons
(4) 10 protons and 7 electrons

17. Sodium atom differs from sodium ion in the number of
(1) Electron (2) Protons
(3) Neutrons (4) Does not differ

18. The number of electrons in one molecule of CO_2 are
(1) 22 (2) 44
(3) 66 (4) 88

19. The number of electrons in the atom which has 20 protons in the nucleus is
(1) 20 (2) 10
(3) 30 (4) 40

20. Number of neutrons in 1 molecule of CO_2 are
(1) 22 (2) 20
(3) 12 (4) 16

21. Sum of proton, electron and neutron in1molecule of $H_2S_2O_8$
(1) 290
(2) 292
(3) 294
(4) 296

22. The number of electrons in Cl^- ion is
(1) 19 (2) 20
(3) 18 (4) 35

23. An atom which has lost one electron would be
(1) Negatively charged
(2) Positively charged
(3) Electrically neutral
(4) Carry double positive charge

24. Positive ions are formed from the neutral atom by the
(1) Increase of nuclear charge
(2) Gain of protons
(3) Loss of electrons
(4) Loss of protons

25. The nucleus of the atom consists of
(1) Proton and neutron
(2) Proton and electron
(3) Neutron and electron
(4) Proton, neutron and electron

26. The number of electrons in $[_{19}K^{40}]$ is
(1) 19 (2) 20
(3) 18 (4) 40

27. In the nucleus of $_{20}Ca^{40}$ there are
(1) 40 protons and 20 electrons
(2) 20 protons and 40 electrons
(3) 20 protons and 20 neutrons
(4) 20 protons and 40 neutrons

28. Nitrogen atom has an atomic number of 7 and oxygen has an atomic number 8. The total number of electrons in a nitrate ion (NO_3^-) will be
(1) 8
(2) 16
(3) 32
(4) 64

ANSWER KEY

1.	(2)
2.	(3)
3.	(3)
4.	(3)
5.	(1)
6.	(2)
7.	(4)
8.	(3)
9.	(3)
10.	(3)
11.	(1)
12.	(1)
13.	(3)
14.	(3)
15.	(3)
16.	(1)
17.	(1)
18.	(1)
19.	(1)
20.	(1)
21.	(2)
22.	(3)
23.	(2)
24.	(3)
25.	(1)
26.	(1)
27.	(3)
28.	(3)