1. Mass of 1 mole of Nitrogen atom is\_\_\_\_\_.

(a) 28 amu (b) 14 amu (c) 28 g (d) 14 g

2. 1 mole of any substance contains molecules.

(a) 6.023×1023 (b) 6.023×10-23 (c) 3.0115×1023 (d) 12.046×1023

3. Atoms of different elements having same mass number, but different atomic numbers are called …………..

(a) isoelectronics (b) isotones (c) isobars (d) isotopes

4. The number of atoms present in a molecule is called its ………….

(a) valency (b) atomicity (c) amu (d) mass number

5. The mass of proton or neutron is approximately\_\_\_\_\_.

(a) 1 amu (b) 1.609 × 10-19 g (c) 1 g (d) 6.023×10-23g.

6. The natural abundance of C-12 and C-13 are 98.90% and 1.10% respectively. The average atomic mass of carbon is :

(a) 12 amu (b) 12.011 amu (c) 14 amu (d) 12.90 amu

7. The mass percentage of hydrogen in ethane (C2H6) is:

(a) 25% (b) 75% (c) 80% (d) 20%

8. Which of the following is an example of a homo triatomic molecule?

(a)Phosphorous (b)Sulphur (c)Bromine (d)Ozone.

9. The atomic radius of Hydrogen atom is

1. 37 nanaometer b. 37 picometer c. 17 picometer d. 57 picometer

10. Which element is the primary reason for radioactivity found in human body?

a) Potassium – 40 b) Lithium - 6 c) Bismuth -83 d) Boron - 10

11. Which gas is filled inside a Tube light?

a) Helium and Radon b) Ozone and Argon c) Mercury Vapour and Argon

d) None

12. How many parts are of other metals in a 17 carat Gold?

[A] 3 [B] 5 [C] 7 [D] 9

13. The volume of a gas at a given pressure and temperature is proportional to the number of

atoms or molecules regardless of the nature of the gas. This concept is called as\_\_\_?

[A] Avogadro‘s law [B] Dalton‘s law [C] Henry‘s law [D] Ideal gas law

14. Who among the following had given the Atomic Theory?

[A] Benzamin Franklin [B] Madam curie [C] Albert Einstien [D] John Dalton

15. Atoms of an element differ from those of all other element in

(a) Atomic number and electronic configuration

(b) Atomic number and number of valence electrons

(c) Number of neutrons and electronic configuration

(d) Number neutrons and number of valence electronic

16. Atoms are composed of

(a) Electrons only (b) protons only

(c) Electrons and protons (d) Electrons and nuclei

17. Who suggested that most of the mass of the atom is located in the nucleus?

(a) Thomson (b) Bohr (c) Rutherford (d) None of this

18. An atom of an element which mass number 23 and atomic number 11 will have

* 1. 11 neutrons, 12 protons and 11 electrons
  2. 11 protons, 12 neutrons and 11 electrons
  3. 11 neutrons, 11 protons and 12 electrons
  4. 23 protons and 11 electrons

19. The location and energy of an electron in an atom can be specified by

(a) atomic mass (b) Atomic number (c) Quantum number (d) None of this

20. According to Dalton’s atomic theory, the smallest particle which can exist independently is

(a) An atom (b) A molecule (c) A cation (d) An anion

21. The recent atomic weight scale is based in

(a) 1H1 (b) 1H2 (c) 6C12 (d) 8O16

22. No two electrons in atom can have same set of four quantum number is

(a) Bohr’s law (b) Aufbau principle

(c) Newton’s law (d) Pauli’s exclusion principle

23. The atomic number of elements is identified by

a. J.J.Thomson (b) Mosley (c) Chadwick (d) Goldstein

24. The Heisenberg Principle states that \_\_\_\_\_\_\_\_\_\_\_\_\_

(a) no two electrons in the same atom can have the same set of four quantum numbers.

(b) two atoms of the same element must have the same number of protons.

(c) it is impossible to determine accurately both the position and momentum of an electron simultaneously.

(d) electrons of atoms in their ground states enter energetically equivalent sets of orbitals singly before they pair up in any orbital of the set.

(e) charged atoms (ions) must generate a magnetic field when they are in motion

25. With regard to the species 16O2-, 19F- and 20Ne, which of the following statements is correct?

* 1. All three species contain 10 electrons.
  2. (b)The sum of the neutrons in all three species is 27.
  3. The sum of the protons in all three species is 28.
  4. Both 19F- and 20Ne contain 20 neutrons.
  5. none of the above

26. The atoms in which the number of protons is same but the number of neutrons is different, are known as

a. isobars b. isomers c. isotones d. isotopes

27. Total number of atoms represented by the compound CuSO4.5H2O is

a. 27 b) 21 c) 5 d) 8

28. The percentage of Oxygen in NaOH is

a. 40 b) 60 c) 8 d) 10

29. The electronic configuration of an atom is 1S2 2S2 2P3. The number of unpaired electrons in this atom is

1. 1 b. 0 c. 3 d. 5

30. JJ Thomson’s proposed model of action is generally called ……………. model.

(a) Cream and cake (b) Plum and pudding

(c) Planetary model (d) Nuclear model

31. Which atomic orbital is spherical in shape?

(a) 2s (b) 3p (c) 3d (d) 4f

32. The correct order of increasing energy of atomic orbital is

a. 5p < 4f < 6s < 5d b. 5p < 6s < 4f < 5d

c. 4f < 5p < 5d < 6s d. 5p < 5d < 4f < 6s