Chemistry [DPP]
Atomic Structure

1. The space between proton and electron in hydrogen atom is :
(A) Absolutely empty (B) Full of electromagnetic radiation
(C) Full of air (D) Full of Ether

2. Nucleons are equal to :
(A) Number of electrons in an atom
(B) Number of protons in the nucleus
(C) Number of neutrons in the nucelus
(D) Number of protons and neutrons in the nucleus

3. Watermelon model of atom was proposed by:
(A) Rutherford (B) Thomson (C) Bohr (D) Sommerfeld

4. According to classical theory, the proposed circular path of an electron in Rutherford atomic model will be:
(A) Circular (B) Straight line (C) Parabolic (D) Spiral

5. Alpha-particle that come closer to nuclei:
(A) Are deflected more (B) Are deflected less
(C) Make more collisions (D) None

6. Positive charge in an atom is :
(A) scattered all over the atom (B) Concentrated in the nucleus
(C) Revolving around the nucleus (D) None is true

7. Which particle may be removed from a stable neutral atom with least energy change :
(A) An $a-$particle (B) A neutron (C) A proton (D) An electron

8. If each hydrogen atom is excited by giving 8.4 eV of energy then the number of spectral lines emitted is equal to:
(A) None (B) Two (C) Three (D) Four

9. Rutherford created a theoretical picture of the atom based on :
(A) Stars in galaxy
(B) Model of planets revolving round the sun
(C) Behavior of waves in the ocean
(D) Clouds in sky that move and mix in changing shapes

10. An atom is defined as :
(A) Largest particle of matter (B) Non-divisible particle
(C) The smallest particle of element (D) None

11. According to dalton's atomic theory, the smallest particle in which matter can exist, is called
(A) an atom (B) an ion (C) an electron (D) a molecule

12. According to dalton's atomic theory, an atom
(A) can not be subdivided
(B) can be further subdivided
(C) contains neutrons, protons and electron
(D) none of these

13. According to dalton's atomic theory, atoms of an element are
(A) similar in all respects except their masses
(B) similar in all respects except their sizes
(C) identical
(D) different

14. Which of the following is the correct statement for an electron
(A) electron is a particle having a negative charge of one unit and zero atomic mass
(B) electron is a particle having a positive charge of unit and zero atomic mass
(C) electron is a particle having a negative charge of one unit and a mass of about $9\times10^{-28}g$
(D) electron is a particle having a negative charge and a mass of about $1.7\times10^{-24}g$

15. Rutherford's experiment on scattering of α -particles showed for the time that the atom has
(A) electrons (B) protons (C) nucleus (D) neutrons

16. Rutherford's scattering experiment is related to the size of the
(A) nucleus (B) atom (C) electron (D) neutron

17. The element used by Rutherford in his famous scattering experiment was
(A) tin (B) gold (C) lead (D) silver

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ANSWER KEY

1.	A	**2.**	D	**3.**	B	**4.**	D	**5.**	A
6.	B	**7.**	D	**8.**	A	**9.**	B	**10.**	C
11.	A	**12.**	A	**13.**	C	**14.**	C	**15.**	C
16.	A	**17.**	B						