1. The charge to mass ratio of the positive rays was determined by (1)

2. The total number of _____ and in the nucleus of an atom is known as its mass number. (I)

3. What are main applications of the iso topes? (1)

4. State the differences between the cath ode rays andcanal rays? (1)

5. Define valency. How it is related to the atomic structure? (1)

6. What do you mean by transformation of energy? (1)

7. Name the device which converts coal energy into mechanical energy. (1)

8. What kind of energy transformations take place at a thermal power station? (1)

9. Define potential energy. (1)

10 . What are the important properties of the neutron? Compare these with the properties of the electron and the proton. (2)

11. Show the distribution of electrons in various energy levels in case of Potassium. Sodium and Neon. (2)

12. What experiment established the presence of atomic nucleus? What features of nucleus were deduced from this experiment? (2)

13. What are the similarities in the electronic structure of the following sets of atoms: helium, neon and argon and lithium, sodium and potassium. (2)

14, How will you find the valency of chlorine, sulphur and magnesium? (2)

15. If bromine atom is available in the form of two isotopes Br (49.7%) and Br(50.3%), calculate the average atomic mass of bromine atom. (3)

16. A student weighs 30 kg. Suppose his entire body is made up of electrons. How many electrons are there in his body? Compare the total number of electrons in his body with the population of India. (3)

17. What is the principle and application of Mass Spectroscopy? (3)

18. What are the limitations of Rutherford's model of an atom? (3)

19. Compare all the proposed models of an atom (Thomson, Rutherford and Bohr), (3)