

Value Based Questions

Q.1. Ria and Rama are students of Class-X. Ria is very much organised and maintained. The teachers love her. She earns a great respect in the class whereas Rama is unorganised and always faces a lot of problems in handling life situations.

Answer the following questions based on above information:

- (i) In your opinion how does organisation help in daily life?**
- (i) How can you relate the above fact with the chapter-'classification of elements'?**
- (iii) How does classification of elements help us in studying them properly?**

Ans. (i) Organisation makes our life simple, easy and systematic.

(ii) As classification and organisation help us in our daily life, in the same way classification of elements has made the study of elements easier and simple.

(iii) We can know about the properties of elements because of this classification.

Q. 2. Döbereiner arranged the elements in the order of increasing atomic masses in a triad. The arrangement was modified by John Newlands and later by Dimitri Mendeléev. Even Mendeléev's arrangement was later modified by Henry Moseley resulting in the Modern Periodic Table. There are many other similar examples in the history of scientific advancement where theories and novels were modified by later scientists and the original contributors accepted these modifications happily.

Answer the following questions based on the above information:

- (i) How does the Modern Periodic Law given by Moseley differ from Periodic Law stated by Mendeléev?**
- (ii) What scientific values can be associated with the above anecdotes?**
- (iii) Give an example from your life experiences so far that reflects display of such values by you.**

Ans. (i) Mendeléev's Periodic Law states that the properties of elements are the periodic function of their atomic masses. Moseley's Modern Periodic Law states that the properties of elements are the periodic function of their atomic numbers.

(ii) Open-mindedness, ability to accept failure, intellectual, honesty, respect for other's views, spirit of enquiry.

(iii) Acceptance of wrong traditional beliefs initially and change in these beliefs at a later stage.