

J.E.E./A.I.P.M.T.Foundation - XI Chemistry Worksheet

Time: 30 min

Ch#10: The s-Block Elements-01

Full Marks: 20

Instructions:

1. All questions are compulsory.
2. Please give the explanation for the answer where applicable.

Q1 - What is the general electronic configuration of the outermost shell of alkali metals?

(1 Mark)

Q2 - What are the main sources of lithium?

(1 Mark)

Q3 - Which alkaline earth metal forms covalent compound?

(1 Mark)

Q4 - Alkali metals and their salts give characteristic colour of the flame. Explain?

(2 Marks)

Q5 - A piece of burning magnesium ribbon continues to burn in SO_2 . why?

(2 Marks)

Q6 - Beryllium and Magnesium do not give colour to the flame why?

(2 Marks)

Q7 - When an alkali metal dissolves in liquid ammonia, the solution acquires different colours. Explain?

(3 Marks)

Q8 - Comment on the following:

- i) KO_2 is paramagnetic.
- ii) BeO is insoluble but BeSO_4 is soluble in water.
- iii) Lithium is the only alkali metal which forms nitride directly.

(3 Marks)

Q9 - Discuss the position of alkali metals in the periodic table. Also discuss the trends in some important atomic and physical properties in the group.

(5 Marks)