Chemistry Worksheet Class 11 on Chapter 10 The s-Block Elements – Set 2

Q1. Which of the following is not a lithium ore?
(a) Petalite
(b) Albite
(c) Triphylite
(d) None of the above

Q2. Which of the following is a radioactive alkali metal?
(a) Francium
(b) Radium
(c) Both (a) and (b)
(d) None of the above

Q3. Which of the following is the correct stability order of alkali metal chlorides?
(a) LiCl > KCl > NaCl > CsCl
(b) CsCl > KCl > NaCl > LiCl
(c) NaCl > KCl > LiCl > CsCl
(d) KCl > CsCl > NaCl > LiCl

Q4. Why does sodium metal exhibit metallic lustre?
(a) Diffusion of sodium ions
(b) Oscillation of loose electrons
(c) Excitation of free electrons
(d) Existence of body-centred cubic lattice

Q5. What will not happen if a moderate amount of sodium metal is dissolved in liquid ammonia at a low temperature?
(a) Liquid ammonia will become diamagnetic
(b) Liquid ammonia will become a good conductor of electricity
(c) Sodium ions will form in the solution
(d) None of the above

Q6. Why do beryllium and magnesium not give a characteristic colour to the flame, unlike other alkaline earth metals?

Q7. What is the formula of gypsum? What happens when it is heated?

Q8. Why can we not synthesise alkali and alkaline earth metals using chemical reduction?

Q9. Why do group 1 metals not exist in a free state?

Q10. What happens when sodium oxide reacts with carbon dioxide? Write the balanced chemical equation for the reaction.

Q11. Answer the following:
(a) Name the alkali metal that forms superoxide when heated in excess air.
(b) Name the metal that floats on the water without any apparent reaction.

Q12. Why does a piece of magnesium continue to burn in the presence of sulphur dioxide?

Q13. Why can beryllium chloride be easily hydrolysed?

Q14. Answer the following questions.
(a) Arrange the following carbonates of alkaline earth metal in the decreasing order of thermal stability.
$SrCO_3$, $BaCO_3$, $CaCO_3$, $BeCO_3$, $MgCO_3$.
(b) Arrange the following sulphates of alkaline earth metals in the decreasing order of thermal stability.
$SrSO_4$, $BeSO_4$, $MgSO_4$, $CaSO_4$

Q15. Which of the following has the highest solubility?
(a) $BaSO_4$, $CaSO_4$, $MgSO_4$.
(b) $Mg(OH)_2$, $Ba(OH)_2$, $Ca(OH)_2$,

Q16. Why can we not prepare alkali and alkaline earth metals from chemical reduction?

Q17. What is Epsom salt? What is the action of heat on it?

Q18. Why is it difficult to extract alkali metal by usual methods?

Q19. What is the similarity between lithium and magnesium?

Q20. List properties of lithium that differ from the rest of the family members.