Chemistry Worksheet Class 11 on Chapter 10 The s-Block Elements – Set 4

Q1. Which of the following is most stable?
(a) Beryllium carbonate
(b) Magnesium carbonate
(c) Strontium carbonate
(d) None of the above

Q2. Which of the following contains magnesium?
(a) Vitamin B_{12}
(b) Chlorophyll
(c) Ascorbic acid
(d) None of the above

Q3. Which of the following is the chemical name and formula of quicklime?
(a) Calcium oxide (CaO)
(b) Calcium hydroxide [$Ca(OH)_2$]
(c) Calcium carbonate [$CaCO_3$]
(d) None of the above

Q4. Which of the following is formed when slaked lime reacts with chlorine?
(a) Calcium oxychloride
(b) Calcium oxide
(c) Calcium chloride
(d) None of the above

Q5. Which of the following is the by-product of the Solvay ammonia process?
(a) Calcium chloride
(b) Calcium carbonate
(c) Carbon dioxide
(d) None of the above

Q6. Which of the following has the largest solubility in water?
(a) Magnesium hydroxide
(b) Barium hydroxide
(c) Calcium hydroxide
(d) None of the above

Q7. Write the general configuration of s-block elements.

Q8. Why does the basic character of alkali metal hydroxide increase down the group?

Q9. Give the main reasons for the difference in properties of lithium and sodium.

Q10. Among the alkali metals, which element has the
(a) Highest melting point
(b) Most electropositive character
(c) Lowest ion size
(d) Strongest reducing character

Q11. Why is lithium hydride more stable than sodium hydride?

Q12. Why should we not extinguish sodium fire with water?

Q13. Can we dissolve sodium hydride in water?

Q14. Why are alkali metals good reducing agents?

Q15. Explain the extraction of sodium from sodium chloride.

Q16. What are the chemical formulae of the following ores?
(a) Dolomite
(b) Gypsum
(c) Epsom salt
(d) Carnallite

Q17. Why is it essential to add gypsum in the final stages of the preparation of cement?
Q18. Name the chief factors responsible for the abnormal behaviour of lithium.

Q19. Complete the following reactions.
(a) $Mg(NO_3)_2$ + Heat →
(b) LiOH + Heat →
(c) Li + HC ≡ CH →
(d) Na + O_2 →

Q20. How do the following properties vary among the alkali metals?
(a) Atomic radius
(b) Ionisation energy
(c) Metallic character