**TOT. MARKS: 30**

**TIME: 45 MIN**

**DATE: 25.4.20**

**S-BLOCK ELEMENTS -PRACTICE SHEET-01**

**SUBJECT: CHEMISTRY**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | is obtained by reacting an excess of ….with an ethereal solution of : | | | | | | | |
|  | a) |  | b) |  | c) | Li | d) | LiOH |
| 2. | The correct order regarding the solubility of alkaline earth metals chlorides in water is: | | | | | | | |
|  | a) |  | | | | | | |
|  | b) |  | | | | | | |
|  | c) |  | | | | | | |
|  | d) |  | | | | | | |
| 3. | The correct order of solubility of fluorides at alkaline earth metals is: | | | | | | | |
|  | a) |  | | | | | | |
|  | b) |  | | | | | | |
|  | c) |  | | | | | | |
|  | d) | None of the above | | | | | | |
| 4. | The ease of adsorption of the hydrates alkali metal ions on an ion-exchange resins follows the order: | | | | | | | |
|  | a) |  | | | | | | |
|  | b) |  | | | | | | |
|  | c) |  | | | | | | |
|  | d) |  | | | | | | |
| 5. | The hydration energy of ions is larger than that of: | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 6. | Chile saltpetre is the ore of: | | | | | | | |
|  | a) | Iodine | b) | Bromine | c) | Sodium | d) | Magnesium |
| 7. | Thomas slag is | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 8. | Sodium carbonate is manufactured by Solvay process. The products those are recycled are: | | | | | | | |
|  | a) |  | b) |  | c) | and | d) |  |
| 9. | Based on lattice energy and other considerations which one of the following alkali metal chlorides is expected to have the highest melting point? | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 10. | Sodium carbonate on heating gives: | | | | | | | |
|  | a) | Water vapours | | | | | | |
|  | b) | Carbon dioxide | | | | | | |
|  | c) | Carbon dioxide + water vapour | | | | | | |
|  | d) | None of the above | | | | | | |
| 11. | The correct order of hydration energy of alkaline earth metal ions is: | | | | | | | |
|  | a) |  | | | | | | |
|  | b) |  | | | | | | |
|  | c) |  | | | | | | |
|  | d) | None of the above | | | | | | |
| 12. | Which one has highest lattice energy? | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 13. | When is bubbled into an aqueous solution of , the following is formed: | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 14. | The decomposition temperature is maximum for | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 15. | A metal carbonate is sparingly soluble in water and evolves on heating. The metal is: | | | | | | | |
|  | a) | An alkali metal | | | | | | |
|  | b) | A noble metal | | | | | | |
|  | c) | An alkaline earth metal | | | | | | |
|  | d) | None of these | | | | | | |
| 16. | Anhydrous mixture of and contains which type of ions? | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 17. | Microcosmic salt is | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 18. | Sodium burns in dry air to give: | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 19. | The byproduct of Solvay process is: | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 20. | Select the incorrect statement | | | | | | | |
|  | a) | can form complexes due to its very small size | | | | | | |
|  | b) | cannot form complexes | | | | | | |
|  | c) | burns in air releasing dazzling light rich in UV rays | | | | | | |
|  | d) | when mixed with ice gives freezing mixture | | | | | | |
| 21. | Acidified solution of sodium thiosulphate is unstable because in thiosulphate: | | | | | | | |
|  | a) | The sulphur atoms are at unstable oxidation state of +2 | | | | | | |
|  | b) | The two sulphur atoms are in different oxidation states of +5 and -1 | | | | | | |
|  | c) | The — bond are unstable bonds | | | | | | |
|  | d) | Thio compounds contain sulphur in zero oxidation state | | | | | | |
| 22. | From which mineral Ra is obtained? | | | | | | | |
|  | a) | Limestone | b) | Rutile | c) | Pitch blende | d) | Haematite |
| 23. | Metals belonging to the same group in the periodic table are: | | | | | | | |
|  | a) | Magnesium and sodium | | | | | | |
|  | b) | Magnesium and copper | | | | | | |
|  | c) | Magnesium and barium | | | | | | |
|  | d) | Magnesium and potassium | | | | | | |
| 24. | In the extraction of sodium by Down’s process, cathode and anode are respectively | | | | | | | |
|  | a) | Copper and nickel | | | b) | Copper and chromium | | |
|  | c) | Nickel and chromium | | | d) | Iron and graphite | | |
| 25. | Which of the following statements is false regarding saline hydrides? | | | | | | | |
|  | a) | In the molten state they conduct electricity | | | | | | |
|  | b) | They dissolve in water giving off hydrogen | | | | | | |
|  | c) | They are used as reducing agents | | | | | | |
|  | d) | They are covalent in nature | | | | | | |
| 26. | Among the alkali metals caesium is the most reactive because | | | | | | | |
|  | a) | Its incomplete shell is nearest to the nucleus. | | | | | | |
|  | b) | It has a single electrons in the valence shell. | | | | | | |
|  | c) | It is the heaviest alkali metal. | | | | | | |
|  | d) | The outermost electron is more loosely bound than the outermost electron of the other alkali metals. | | | | | | |
| 27. | Soda ash is chemically: | | | | | | | |
|  | a) |  | b) |  | c) |  | d) | (anhydrous) |
| 28. | Which of the following ions, will have maximum hydration energy? | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |
| 29. | Chlorophyll contains: | | | | | | | |
|  | a) | Na | b) | K | c) | Mg | d) | Mn |
| 30. | Oxygen can be obtained by heating: | | | | | | | |
|  | a) |  | b) |  | c) |  | d) |  |