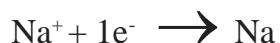


**Answer Key.**

1. +4
2. flux
3. Vineger
4. Drying agent
5. S
6. 2
7. Magnetic Separation
8. Mg
9. Highly Concentrated aqueous solution of ammonia is liquor ammonia  
Ammonia gas liquified by applying pressure is liquid ammonia.
10. a) 6L  
b) Cylinder A
11. any two points
12.  $1s^2 2s^2 2p^6 3s^2 3p^6 3d^5 4s^1$   
(explanation)
13. Any two statements
14. According to Boyle's law, when air bubbles come up pressure decreases, volume of the air bubble increases.
15. Zinc blende  
froth floatation
16. Correct labelled diagram
17. a) 17g  
b) 5  
c)  $5 \times N_A$
18. a)  $\text{CH} \equiv \text{CH} + \text{H}_2 \rightarrow \text{CH}_2 = \text{CH}_2 \rightarrow$  Addition reaction  
b)  $\text{C}_6\text{H}_6 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O} \rightarrow$  Combustion  
c)  $\text{CH}_3\text{-CH}_3 + \text{Cl}_2 \rightarrow \text{CH}_3\text{-CH}_2\text{Cl} + \text{HCl} \rightarrow$  Substitution
19. a) Haber process  
b) Explanation based on Le-chatlier's principle.
20. a) Anode  $\rightarrow \text{Cl}_2$  gas  
Cathode  $\rightarrow$  Na metal

b) A + Cathode :



21. Magnetic Separation  
leaching  
froth floatation
22. a) A  $\rightarrow$  invertase  
B  $\rightarrow$  Zymase  
b) 95.6% strong ethanol solution known as rectified spirit.  
c) A mixture of absolute alcohol and petrol.
23. explanation with examples.
24. A  $\rightarrow$  Sodium aluminate  
B  $\rightarrow$  Aluminium hydroxide  
C  $\rightarrow$  Alumina
25. i) a and c  
b and d  
ii) a and c  $\rightarrow$  structural isomerism  
b and d  $\rightarrow$  functional isomerism.
26. a) Atomic number - 16  
b) 3  
c) 3p  
d) block - p  
group - 16
27. a) Ions have no freedom of movement  
b) Anode  $\rightarrow \text{Cl}_2$   
Cathode  $\rightarrow \text{H}_2$  gas  
c)  $2\text{Cl}^- \rightarrow \text{Cl}_2 + 2\text{e}^-$
28. a) But - 1 - ene  
b) 2 - methylpentane  
c) But - 2 - yne  
d) 2 - methyl propane
29. a) 2  
b)  $2 \times N_A$   
c) 44.8 L  
d) 2 mol

30. a) any two factors.

b)  $\text{V}_2\text{O}_5$

c) Contact process

31. a) Mn +3

b)  $\text{Mn}^{3+} \rightarrow 1s^2 2s^2 2p^6 3s^2 3p^6 3d^4$

c) Explanation

32.

