DISA -22 SET A , ANSWER KEY

1.3f,1p
2.16g Oxygen
3.Na
4.NH_3 (Ammonia)
5.Liquified ammonia
6.Hydroxyl group
7. 22.4
8.f
9.Alumina
10.Distillation
Liquation -Low melting point
Low reactivity
11.Number of moles of CO_2 =89.6/22.4=4 Mole
Mass of CO_2 gas= 4x44=176 g
12.1&4 - Chain isomers
2&3 – Position isomers
13.a) $1s^2 2s^2 2p^6 3s^2 3p^3$
b) p-block
c) 15th group
14. a) 2 atm,2 L
b)Inversely proportional
c) Boyles law
15. a) Alkene
b) C_nH_{2n}
c)Pent- 1- ene
16. a)90g, $5x6.022x10^{23}$
b)5, $10x6.022x10^{23}$
c)16 g, 2
17.a) Anode – Carbon rod
Cathode – Carbon lining
b) Hall- Heroult process
c) To reduce the melting point and to increase the electrical conductivity of alumina
18.a) D
b) B & C
c) A
d)$1s^2 2s^2 2p^6 3s^2 3p^6 3d^3$
19. a) Fe_2O_3
b) Fe_2O_3 +3 CO----> 2Fe+ $3CO_2$
c) CO
d)$CaO+SiO_2$---->$CaSiO_3$
20. a) 6
b) Methyl group
c) 3 & 4
d) 3,4- Dimethyl hexane
21. a) Anode - Chlorine gas
Cathode – Hydrogen gas
b) $2Cl^-$ ----------> $Cl_2 + 2e^-$
c) Na^+ and OH^-
d) Production of metals, non-metals,compounds and for refining of metal
22. a) $BaCl_2$
b)$BaSO_4$
c) Nothing is happened, because $BaSO_4$ is insoluble in HCl
d) For sulphate
23. a) NH_4Cl and $Ca(OH)_2$
b)$2NH_4Cl+Ca(OH)_2$---->$2NH_3+2H_2O+CaCl_2$
c)To remove the moisture present in NH_3 .
d)Density of ammonia is less than air
e) When a glass rod dipped in dil.Hcl is inserted in a gas jar containing ammonia, white fumes are formed.
24.a)Zn and Cu
b)Because the metal salt solutions are $ZnSO_4$ and $CuSO_4$
c)Anode-Zn, Cathode-Cu d)Zn to Cu e)$Zn + Cu^{2+}$ ---- > Zn^{2+} + Cu