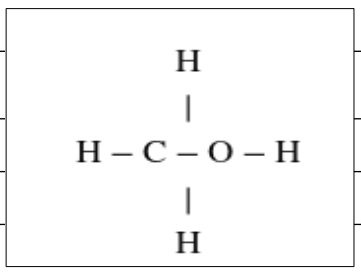
1	b (x/4)1	1
2	d(Both A and R are not correct)	1
3	c	1
4	b(statements 1&11 are correct but iii is not not correct)	1
5	a)NH_4Cl	1
	b)NH_3 +Hcl --->NH_4Cl	1
6	a)ii	1
	b)Fe	1
7	a)froth flotation process	1
	b)roasting	1
8	a)C_6H_{10}	1
	b)$CH{\equiv}C\text{-}CH_2\text{-}CH_2\text{-}CH_2\text{-}CH_3$	1
9	a)+4	1
	b)$1s^2 2s^2 2p^6 3s^2 3p^6 3d^3$	1
10 A	a)For every 1 gram of methane, you need 64/16=4gm of oxygen	1
	Mass of oxygen=160x4=640g	
	b)80/16=5 mol 5x22.4=112L	1
B	a)89.6/22.4 =4 moles 4x17=68g	1
	b)4x6.022x10^{23}	1
11 A	P=CH_2=CHCl ---vinyl chloride	1
	Q=$(CH_2\text{–}Cl\text{-})_n$ ---PVC	1
B	a)CH_3-OH	1
	b)CH_3-OH +CO --->(catalyst) CH_3-COOH	1
12 A	a)$1s^2 2s^2 2p^6 3s^2$	1
	b)PO	1



	c)$1s^2 2s^2 2p^6 3s^2\ 3p^6 4s^2$	1
B	a)n=3, l=0	1
	b)3 (p_x, p_y, p_z)	1
	c)Q_2P	1
13	a)CH_3-CH_2-CH_2--COO-CH_2-CH_3	1
	b)butanoic acid and ethanol	1
c	$CH_3CH_2CH_2COOH + CH_3CH_2OH \xrightarrow{H^+} CH_3CH_2CH_2COOCH_2CH_3 + H_2O$	1
14	a)Boyle's law	1
	b)$P_1V_1=P_2V_2$	
	V_2 =2x450/6 =150L	2
15 A	a)i--High-Carbon Steel ii---Mild Steel	2
	b)cores of electrical transformers, motors, and generators	1
B	a)test tube where it is wrapped in copper wire.Iron (Fe) is more reactive than copper (Cu) but less reactive than magnesium (Mg).	2
	b)it reacts almost instantly with oxygen in the air to form a thin, tough, and stable layer of aluminium oxide (Al_2O_3) on its surface.	1
16	a)CH_3-C(=O)-CH_2-CH_2-CH_3	1
	b)CH_3-CH_2-CH_2-CH_2-C(=O)-H pentanal	2
17	a)Mg and Ag electrodes are used to make the cell with the highest voltage.	1
	b)$Ag^+ + e^- \text{--->} Ag$	1
	c)Mg	1
18 A	a)$H_2SO_4 \text{--->} 2H^+ + SO_4^{-2}$	1
	b)NaCl +H_2SO_4 -->$NaHSO_4$ +HCl	1
	c)The salt formed is Ammonium sulphate,acidic in nature.	2

B	**a)calcium hydroxide**	**1**
	b)$Ca(OH)_2$ --->Ca^{+2} +2OH^-	**1**
	c)No, calcium chloride does not undergo salt hydrolysis.Calcium chloride is a salt formed from a strong base (calcium hydroxide) and a strong acid (hydrochloric acid).	2