

MOCK TEST TERM - 2

CHEMISTRY



SOLUTION

Section – A

1.	(i)	Amr	nonia	(ii)	C_4H_{10}	
	(iii)	Deh	ydration	(iv)	Platinum	
	(v)	Con	c. Sulphuric acid	(vi)	Carboxylic acid	
	(vii)	vii) Magnesium		(viii) NaOH (Caustic soda)	
	(ix)	x) Nitrate (NO ₃ ⁻)		(x)	Lead Nitrate	
	Sect					
2.	(i)	(a)	C ₃ H ₄ Propyne	(b)	Duralumin	
		(c)	Inverted tunnel arrangement	(d)	C_nH_{2n-2}	
		(e)	Catenation			
	(ii)	(a)	Bauxite ($Al_2O_3.2H_2O$)			
		(b)	b) To lower the fusion point of alumina and enhance the electrical conductivity.			
		(c)	Anodes (Graphite) get oxidized.			
		(d)	At Cathode $Al^{3+} + 3e^{-} \rightarrow Al$ At Anode $O^{2-} - 2e^{-} \rightarrow O$			
			$O + O \rightarrow O_2$			
	(e) Aluminium is a highly reactive me			etal for	m a stable oxide.	
3.	(i)	(a)	a) Purple colour of KMnO ₄ solution fades / colourless.			
		(b)	Rotten egg smelling H ₂ S is released.			
		(c)) Reddish Brown colour of Bromine solution discharge.			
		(d)	I) Sugar crystals get dehydrated and form black carbon.			
		(e)	(e) Yellow coloured highly explosive liquid NCl ₃ is obtained.			
	(ii)	(a)	Non-volatile nature			
		(b)	$4HNO_3 \xrightarrow{\Lambda} 4NO_2 + 2H_2O + O_2$			
		(c)	Due to the dissolution of Reddish brown Nitrogen dioxide gas.			
4.	(i)	(a)	The phenomena when organic compound has same molecular formula but different structural formula.			
		(b)	A homogenous mixture of two or more metals, or metals and non-metals.			
		(c)	A series of organic compounds having same general formula but successive members differ by CH ₂ group.			

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- (ii) (a) Hydrogen chloride and Ammonia.
 - (b) High solubility in water.

(iii) (a) HCl gas

- (b) Chlorine
- (c) Oxygen
- (d) Nitrogen dioxide
- (e) Ammonia

(i) (a)
$$C_2H_2 + H_2 \xrightarrow{Ni} C_2H_4$$

(b)
$$3PbO + 2NH_3 \longrightarrow 3Pb + N_2 + 3H_2O$$

(c) $8NH_3 + 3Cl_2 \longrightarrow 6NH_4Cl + N_2$ (excess)

(d)
$$Pb(NO_3)_2 + 2HCl_{dilute} \rightarrow PbCl_2 + 2HNO_3$$

(e)
$$CH_4 + Cl_2 \frac{diffused}{sunlight} CH_3 Cl + HCl_3 Cl + HCl_3$$

- (ii) (a) Nitric acid forms a constant boiling mixture with water containing 68% acid. Hence the composition of the solution remains unchanged.
 - (b) Alkanes do not undergo addition reaction.

$$\begin{array}{cccc} H & H & H \\ I & I & I \\ H - C - C - C - C - H \\ I & I \\ H & OH \end{array}$$

(b)



(c)

