



Chemistry

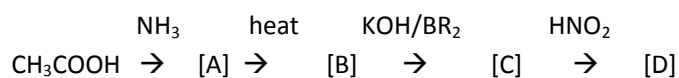
1. State whether the following statements are true or false:
 - (i) Graphite does not conduct electricity.
 - (ii) Ethane is an unsaturated hydrocarbon
 - (iii) Hydrogen peroxide can function as a reducing agent.
 - (iv) Phenolphthalein is a redox indicator.
2. Match the following pairs :

(a) Silver paper	(i) Sulphur
(b) Ethyl acetate	(ii) Lord Kelvin
(c) Dolomite	(iii) Calcium
(d) Absolute temperature	(iv) Magnesium
(e) Gypsum	(v) Ester
	(vi) Tin
3. Fill in the blanks in the following statements :
 - (i) Sodium metal is obtained by the electrolysis of Sodium chloride.
 - (ii) The idea of equivalent weights of elements follows from the Law of proportion.
 - (iii) When a hydrated salt loses water of hydration the phenomenon is called
 - (iv) Bond is present in hydrogen fluoride
 - (v) Is prepared by dehydration of ethyl alcohol
4. (a) Balance the following reaction :
$$\text{NaNO}_2 + \text{NH}_4\text{Cl} = \text{NaCl} + \text{N}_2 + 2\text{H}_2\text{O}$$
 - (b) Which one gives a basic solution on adding water ?
 Ca^{++} , Na^+ , CH_3COO^- , NO_2^-
 - (c) Choose the correct answer:
Calamine is Calcium carbonate/Zinc carbonate/Magnesium carbonate.
 - (d) Which liquid turns anhydrous copper sulphate blue.
 - (e) What is called Philosopher's Wool?
5. (a) How long will it take 5 amperes of current of deposit 2 gms of copper from a solution of copper sulphate?
(Given C.E of copper = 32, F = 96500 coulombs)
 - (b) State the relations between the following two pairs ?
 - (i) ${}_{20}\text{Ca}^{40}$ and ${}_{19}\text{K}^{40}$
 - (ii) ${}_{17}\text{Cl}^{35}$ and ${}_{17}\text{Cl}^{37}$



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6. (a) name the substance used for drying of the following gases :
(i) Ammonia (ii) Hydrogen Sulphide (iii) Chlorine
- (b) Arrange the following elements in the decreasing order of their electro negativities :
Carbon, Chlorine, Magnesium and Sulphur
- (c) Calculate the oxidation number of Cr in $K_2Cr_2O_7$
7. (a) The electronic configuration fo the atom of an element is $1s^22s^2p^6$. What will be its position in the periodic table?
(b) An element being radioactive is represented as $^{226}_{88}X$. State
(i) How an isotope of the element may be obtained?
(ii) Number of electrons and neutrons present in an atom of the isotope.
(c) What happens when sulphur dioxide gas is passed through a suspension of iodine in water?
8. (a) Name of the ingredients used in the production of pig iron in the Blast Furnace. Explain the role of ingredients other than iron ore.
(b) Write the reaction of metallic zinc with alkaline sodium nitrite solution.
(c) What is an amalgam?
9. (a) Give the IUPAC name of the following :
(i) Formic acid (ii) Dimethyl ether (iii) Isopropyl alcohol
(b) Give the method of preparation of chloroform from ethyl alcohol and bleaching powder.
10. (a) Write the products [A],[B],[C] and [D] in the following reactions:



- (b) Write the reaction of the ozonised oxygen ethylene
(c) State the reagents for the following conversion :
Benzene \rightarrow Nitrobenzene \rightarrow Aniline \rightarrow Aniline hydrochloride \rightarrow Benzene diazonium chloride.