ENGG. CHEMISTRY QUESTIONS

SET-1

1.(a) What are alkanes? 2×10

(b) State wheather two elements have the same atomic number or not give example.

(c) Define Alloy.

(d) What is electrochemical equivalent?

(e) Give two examples of Acidic salt, with their name.

(f) What is dechlorination of water.

(g) What is fuel?

(h) Define pH of a solution.

(i) What is the significance of the symbol Hg.

(j) Explain the difference between $2Cl^{\ominus}$ and Cl_2.

[5×6

2(a) Write down the difference between electrolytes and Non-electrolytes.

(b) What is CNG gas write down its uses.

(c) Define Bio fertilisers give examples and write down their uses.

(d) Write down the bond line structure for the following compounds.

(i) n-propyl chloride (ii) 2-Butanol

(iii) 1-butene (iv) n-Hexyne

(v) 2-bromo pentane.

(e) What are the limitation of Arrhenius theory.

(f) Write down any five features of non-ferro alloys.

3(a) Define chemical bond.

(b) Establish the structure of Ammonia with cross and dot product.

(c) What are the difference between electrovalent and co-valent bond.

4(a) Define corrosion.

(b) Explain about atmospheric corrosion and how it can be profected.

5(a) What is Organic compound?

(b) How many types of bond is formed in organic compound is formed, give one example in alkane, alkene and alkyne.

SET - 2

2 marks questions :-

1(a) How can you define Electrochemistry.

(b) Write down the General Formula for Alkene and Alkyne.

(c) What is lubricant?

(d) Name two Biofertiliser.

(e) Write down the composition and uses of Alnico.

(f) With the help of an example state the significance of the symbol of an element.

(g) Define strength of the solution.

(h) Determine the equivalent weight of HNO_3.

(i) How electrovalent bond is formed?

5 marks questions

2(a) Write down the sources of water.

(b) What is LPG gas and write down its uses.

(c) Write down the advantages of vulcanised rubber over raw rubber.

(d) Give short notes of Dielectrics.

(e) What are the functions of lime in soda-lime process for softening of water.

(f) Write down the classification of Hydrocarbons.

3 (a) Define solid lubricant?

(b) Where solid and liquid lubricant are used?

(c) What are the characteristics of Good lubricanting oil.

4. Define chemical bonding. How is covalent bond formed. Explaining taking the example of CO_2, H_2O, NH_3.

5(a) State the composition of Brass, Bronze and Duralumin.

(b) Define elastomer. How vulcanisation of rubber take place.

SET-3

2 marks Questions :-

1(a) Define fungicides.

(b) State Hund's rule?

(c) What are the General formula for Alkyl halide and alcohol.

(d) What is pH.

(e) Define Hydrocarbon.

(f) What is monomer and polymer?

(g) Define ore and mineral.

(h) Define calorific value of fuel.

(i) What is slag and gangue?

(j) How can you prepare 0.01 molar solution of sodium hydroxide.

5 marks Questions :-

2(a) Write down the Electronic configuration of Be, Al, K, Ca, Cu.

(b) What is vulcanisation and why it is required.

(c) Write down the bond line structure of Ethylene, Ethanol, chloro Ethane, Iodo methane.

(d) Write down purposes of lubrication.

(e) What are pesticides? Write down short notes on DDT and BHC.

(f) Define coke and explain about the choice of a good fuel.

3(a) How can you get purewater by ionexchange method.

(b) Give a neat sketch of the system.

(c) How can the adjusted resin be regenerated.

4. Define corrosion. Explain about the protection of corrosion by alloying and galvanisation.

5(a) Define Alloy.

(b) What are the features of Alloy.

(c) What ~~are~~ is roasting and its function.

SET-4

2 marks questions.

1(a) What is coal Gas.

(b) What do you mean by protocity of an acid?

(c) Calculate the equivalent weight of Fe in $FeCl_3$.

(d) What are the uses of CNG and LPG.

(e) Write down the advantages of gaseous fuel.

(f) How many types of slags are there?

(g) Define a functional group.

(h) Write down two uses of Benzene.

(i) Give two examples of non-polar co-valent bond.

(j) What is mineral water?

5 marks questions.

2(a) What are the difference between Aliphatic and Aromatic compound.

(b) Write down the Bohr's model.

(c) state 1st and 2nd law of Faradays laws of electrolysis.

(d) 500ml of a solution contains 0.865 gm of $NaHCO_3$. What is ~~the~~ its normality ?

(e) Explain briefly leaching.

(f) What are the salient features of Rutherford's atomic model.

(g) Define chemical Bond. How co-ordinate compound like H_2O_2 and SO_2 are formed.

3(a) Define hydrocarbons. How many types of hydrocarbons are there.

(b) Write down 4 important uses of PVC.

(c) What are the difference between thermosetting and thermoplastic polymer.

4(a) Calculating the pH value of the solution containing 3.65 gm of Hydrochloric acid per litre of solution.

(b) Write down the difference between Atom and Ion.

(c) Write down the structure.

(i) 2-methy-4-chloro pentene

(ii) 2-chloro-3-methyl-1 pentene.

5(a) Define Faradays 1st law and 2nd laws of electrolysis. [6 Marks]

(b) write down the IUPAC system of naming for the following compounds.

(i) $CH_3 - CH_2 - CH_2 - Br$

(ii) $-CH_3 - CH(CH_3) - CH(CH_3) - CH_3$

(iii) $CH_3 - CH_2 - CH(Cl) - CH_3$

(iv) $CH_2 = CH - CH_2 - CH_3$