MODEL QUESTION PAPER

I Semester B.TECH Examination, August 2011
CHEMISTRY

Time: 3 Hours   Max. Marks: 75

GROUP A: Answer any three questions.

Q.1   Draw a neat diagram and explain the working of lone Exchange process for purification of water.
Q.2   Give characteristics of a good paint.
Q.3   Explain different types of conditioning methods.
Q.4   Write a note on solid lubricant.
Q.5   Write down the constituent & function of paint, in details?

GROUP B: Answer any three questions.

Q.6   Explain ozone layer depletion.
Q.7   Explain the process of Vulcanization of rubber? What are its advantages?
Q.8   State and explain First & Second law of thermodynamics.
Q.9   Define green chemistry? Write down principal of green chemistry.
Q.10 What are the different functions of lubricant with neat sketch? Explain thick film and boundary lubrication.

GROUP C: All Questions are Compulsory.

Q.11 Fill in the blanks

(i)   Amount of free ox ygen required by for the organic decay at 20 degree is called as _____
(ii)   Doping is addition of extremely poisonous _____
(iii) BOD (mg/l) is determined as BOD (mg/l) = _____.
(iv)   Sodium silicate is an example of _____ adhesive.
(v)   Due to green house effect temperature of the earth increases. This is known as_____.

Q.12 Multiple choice question.

(i)   According to Arrhenius theory an acid is _____.
       (a) H+ ion donor   (b) OH- ion donor
       (c) H+ ion acceptor   (d) OH- ion acceptor

(ii)   The calorific value of Diesel oil is _____.
       (a) 11000 kcal/kg   (b) 12000 kcal/kg
       (c) 13000 kcal/kg   (d) None.

(iii) The polymerization between monomers containing two or more reactive functional groups is called _____
(a) Condensation   (b) Polymerization
(c) Addition poly   (d) Copolymers chain poly

(iv) A solution which maintains the PH of solution even addition of acid or base is called _____.
(a) Neutral solution   (b) Buffer solution
(c) Acidic solution   (d) Basic solution.

(v) The equation used to determine effect of temperature on heart of reaction is called _____.
(a) Kerchief's equation   (b) Hess law
(c) None of these   (d) All of these

Q.13 True or false

(i) NH_3 is called as Lewis base.
(ii) Rubbers are low polymers and have low elastic properties.
(iii) Vegetable oil, animal oils & soap of these oils have good absorption property.
(iv) Catalyst does not alter the rate of chemical reactions.
(v) The aniline point is the temperature at which an oil gives cloudy appearance on cooling.

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