Q.24 Write down the essentials of a chemical equation.(CO1)

Q25 Explain proximate and ultimate analysis of coal.(CO2)

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2nd Sem. Branch : Ceramic Engineering
Subject : Chemistry Applications

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple Choice Questions. All Questions are compulsory. (6x1=6)

Q.1 Symbol of element Magnesium is _____. (CO1)

a) Ca b) Na

c) C d) Mg

Q.2 Composition of producer gas is _____. (CO2)

a) $CO+CH_4$ b) $CO+N_2$

c) $CO+H_2$ d) CH_4+H_2

Q.3 The point at which all the three phase of the system co-exit is called_____ . (CO3)

a) Vapour point b) Triple point

c) Sublimation point d) Eutectic point

Q.4 What is molecular mass for oxygen? (CO1)

a) 12 b) 13

c) 14 d) 16

Q.5 Write formula for gibbs phase rule (CO3)

a) P+F = C-1 b) P+F = C+1

c) F=C-P+2 d) P+F=C-2

Q.6 The property of colloids include. (CO5)

a) Tyndall effect b) Brownian movement

c) Both A & B d) None of these

Section-B

Note: Objective/Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Define element. (CO1)

Q.8 Define calorific value of a fuel. (CO2)

Q.9 Coal is a solid fuel (True/False) (CO2)

Q.10 Define the phenomena of absorption. (CO4)

Q.11 Define Refractories. (CO6)

Q.12 Define Tyndall Effect. (CO5)

Section-C

Note: Short answer type Question. Attempt any eight questions out of Ten Questions. (8x4=32)

Q.13 Write down the formula of following compounds. (CO1)

a) Magnesium difluoride

b) Hydrogen Chloride

Q.14 Define following (CO1)

a) Exothermic reactions

b) Endothermic reactions

Q.15 How will you determine calorific value by bomb calorimeter. (CO2)

Q.16 What is Bio gas? Write its three uses. (CO2)

Q.17 Explain the concept of fusion and vaporization curve. (CO3)

Q.18 Define phase, components and degree of freedom. (CO3)

Q.19 Differentiate between true solution, colloids and suspension. (CO4)

Q.20 Explain the terms deflocculation and coagulation. (CO4)

Q.21 Define paint and enamels. Write down advantages of these organic coatings. (CO5)

Q.22 Write down chemical composition and application of lead glass. (CO5)

Section-D

Note: Long answer questions. Attempt any two question out of three Questions. (2x8=16)

Q.23 Calculate the percentage composition of water (H_2O) (Atomic weight of H=1 and O=16) (CO1)