SECTION-D

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

Q.23 Explain the determination of calorific value of a fuel by bomb calorimeter. (CO2)

Q.24 a) What is Tyndall effect? (CO4)

b) What is Brownian movement? What are its causes?

Q.25 a) An organic compound contains C = 29.30%, H = 5.69%, Br = 65.01%. Calculate its empirical formula. (atomic mass of C = 12, H = 1 & Br = 80) (CO1)

b) Define varnish and write down its constituents. (CO5)

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2nd Sem / Ceramic

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 Sodium is_____. (CO1)

a) S b) N a

c) C d) S o

Q.2 Composition of producer gas is_____. (CO2)

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

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

Q.3 The rate of physisorption increases with_____. (CO4)

a) Decrease in temperature

b) Decrease in pressure

c) Increase in temperature

d) Decrease in surface area

Q.4 Glass is a _____. (CO5)

a) Amorphous solid

b) Liquid

c) Solid

d) Transparent organic polymer

Q.5 What is the point at which all the three phases of the system exist? (CO3)

a) Triple Point b) Vapour point

c) Sublimation point d) Eutectic point

Q.6 What is the valency of C? (CO1)

a) 3 b) 4

c) 2 d) 1

SECTION-B

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

Q.7 Define element. (CO1)

Q.8 Glass is not a single compound. (True/False) (CO5)

Q.9 Define sublimation. (CO3)

Q.10 Full form of L.P.G._____. (CO2)

Q.11 Define fuel. (CO2)

Q.12 Define absorption. (CO4)

SECTION-C

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

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

a) Sodium chloride

b) Zinc sulphate

Q.14 Write the essentials of chemical equation. (CO1)

Q.15 What is the importance of ultimate analysis? (CO2)

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

Q.17 Explain the concept of triple point. (CO3)

Q.18 Explain the phase and degree of freedom. (CO3)

Q.19 Write four differences between physical adsorption and chemical adsorption. (CO4)

Q.20 Define the terms flocculation and coagulation. (CO4)

Q.21 Define paint and write down its constituents. (CO5)

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