Q.21 Explain fundamental concept of glassy state.

Q.22 Differentiate between Glass tank furnace and pot furnace.

SECTION-D

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

Q.23 Explain causes and remedies of bubbles and seeds defects in glass.

Q.24 Describe the chemical composition & properties of soda-lime, borosilicate and lead glass.

Q. 25 Describe the various raw materials used in glass manufacturing and their chemical compositions.

No. of Printed Pages : 4 220442
Roll No. .....

4th Semester/ Ceramic
Subject : Glass Technology-I

Time : 3 Hrs. M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

Q.1 _____ is commonly used in laboratory glassware?

a) Soda lime glass b) Borosilicate glass

c) Lead glass d) Laminated glass

Q.2 _____ gives green color glass.

a) Mananese dioxide (MnO_2)

b) Iron Oxide (Fe_2O_3)

c) Cobalt oxide (CoO)

d) Chromium oxide (Cr_2O_3)

Q.3 Typical percentage of silica (SiO_2) in soda lime glass is _____.

a) 30-40% b) 50-60%

c) 70-75% d) 90-95%

Q.4 _____ is used as refining agent.

a) Sodium sulphate b) Sand

c) Alumina d) None of the above

Q.5 _____ is used as a flux to lower the melting point of glass.

a) Silica b) Alumina

c) Soda ash d) Iron oxide

Q.6 The float glass process involves floating molten glass on _____.

a) Mercury b) Molten tin

c) Water d) Lead

SECTION-B

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

Q.7 Glass is brittle in nature. (True/False)

Q.8 Manganese dioxide (MnO_2 is used as a decolourising agent in glass. (True/False)

Q.9 Lead oxide (PbO) is used to improve the refractive index & density of glass. (True/False)

Q.10 Pot furnace is suitable for small-scale glass production. (True/False)

Q.11 Annealing is done remove internal stresses. (True/False)

Q.12 Zirconia refractory bricks are used in glass tank furnace. (True/False)

SECTION-C

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

Q.13 Explain the tempered or toughened glass.

Q.14 Define glass. Write general properties.

Q.15 Explain the functions of fluxes in glass making and give two examples.

Q.16 Explain Borosilicate glass.

Q.17 Write the main parts of a glass melting furnace.

Q.18 Explain regenerator.

Q.19 Describe the factors effecting the selection of raw material for glass.

Q.20 Enlist the physical properties of glass.