

- Q.25 Explain tank temperature of glass.
- Q.26 Explain viscosity.
- Q.27 Explain functions of basic oxides in glass making
- Q.28 Explain fundamental concept of glassy state
- Q.29 Explain phase equilibrium studies.
- Q.30 Tell use of port in glass melting.
- Q.31 Explain importance of surface tension in glass making.
- Q.32 Explain conveying of materials?
- Q.33 Explain batch type furnace
- Q.34 Discuss pot furnace.
- Q.35 Explain Discuss removal of iron from glass sand.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 Describe Chemical and physical characteristics of glass of glasses
- Q.37 Explain the principle of construction and operation of glass tank furnace.
- Q.38 Discuss all the steps involve in making of glass in industry.

No. of Printed Pages : 4

Roll No.

180444/120444/30444

**4th Sem / Branch : Ceramic Engg
Subject:- Glass Technology-I**

Time : 3Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 What is the melting temperature of cristaballite?
a) 1713°C b) 1328°C
c) 1525°C d) 1013°C
- Q.2 Which metal oxide gives blue color to the glass?
a) Cobalt oxide b) Fire oxide
c) Iron oxide d) Zinc oxide
- Q.3 In which country the glass was made earliest?
a) England b) Egypt
c) India d) US
- Q.4 Which of these is network formers oxide?
a) B_2O_3 b) SiO_2
c) Al_2O_3 d) Na_2O
- Q.5 Melting of glass is carried out at temperature raging from

(100)

(4)

180444/120444/30444

(1)

180444/120444/30444

- a) 300°C to 600°C
- b) 130°C to 160°C
- c) 1300°C to 1600°C
- d) 1900°C to 2600°C

Q.6 Which of the following is chemical refining agents

- a) Al_2O_3
- b) AS_2O_3
- c) Na_2O
- d) None

Q.7 Which of the following furnace is used for melting of glass

- a) Kiln
- b) Dryier
- c) Crown
- d) Pot

Q.8 Primary components of glass is _____

- a) Crystal
- b) Sand
- c) Silica
- d) Limestone

Q.9 Tank furnace is used to make _____

- a) Steel
- b) Ironic
- c) Glass
- d) Tile

Q.10 The unit viscosity of glass is _____

- a) Coise
- b) Poise
- c) Celcius
- d) kg/m

SECTION-B

Note: Objective type questions. All questions are compulsory. $(10 \times 1 = 10)$

Q.11 Soda is glass former. (True/False)

- Q.12 Ferrous oxide imparts _____ colour of glass
- Q.13 Increase in soda in glass decreases the viscosity of glass. (True/False)
- Q.14 The working temp depend on viscosity (10^4 poise) of glass and size of ware to be made. (True/False)
- Q.15 Formula of lithium oxide is _____.
- Q.16 Melting of glass is carried out in _____ furnace and _____ furnace
- Q.17 Raw material must be reliable to supply glass forming oxide for which it is used. (True/False)
- Q.18 Lithia is more powerful _____ than soda and potash.
- Q.19 Non-oxide formers are arsenious sulphate (As_2S_3), berilium fluoride (BeF_2), Zinc chloride (ZnCl_2). (True/False)
- Q.20 Glass is brittle. (True/False)

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. $(12 \times 5 = 60)$

- Q.21 List the purpose for uses of chimney draft.
- Q.22 List the physical properties of glass.
- Q.23 Explain moisture estimation in glass sample.
- Q.24 Discuss preparation of glass batch.