

- Q.29 Describe the process of density measurement of glass.
- Q.30 Explain process of annealing.
- Q.31 How strain is detected? Explain.
- Q.32 Discuss manufacturing of fibre glass.
- Q.33 Explain how viscosity of glass is determined?
- Q.34 Discuss glass ceramics in brief.
- Q.35 How safety glass is manufactured? Explain in brief.

#### SECTION-D

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

- Q.36 Explain concept of glassy state.
- Q.37 Explain methods of glass working by pittsburg process
- Q.38 Explain various defects of glass and methods to prevent these defects.

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### 5th Sem / Branch : Ceramic Engineering Sub. : Glass Technology-II

Time : 3Hrs.

M.M. : 100

#### SECTION-A

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

- Q.1 Glass is made up of  
a) Inorganic materials b) Organic materials  
c) Metals d) Organic & metals
- Q.2 Strain in glass can be detected with the help of \_\_\_\_\_.  
a) Weighing b) In water  
c) Polari scope d) All of these
- Q.3 Soda results in \_\_\_\_\_.  
a) Fluidity b) High Expansion  
c) Solubility d) All of these
- Q.4 Refining is carried out by adding\_\_\_\_\_ in glass melt.  
a) Arsenic oxide b) Arsenic dioxide  
c) Arsenic trioxide d) Arsenic pentaoxide
- Q.5 Which of the following is not the defect of glass?  
a) Stone b) Knot  
c) Lamination d) Cords

- Q.6 Non glassy material embedded in piece of glass is known as
- Knots
  - Checks
  - Stones
  - Chords
- Q.7 Small bubbles in cooled glass are known as
- Bubbles
  - Seeds
  - Cords
  - Strai
- Q.8 SQC means \_\_\_\_\_ control with the help of statistics.
- Quantity
  - Quasi
  - Quality
  - Que
- Q.9 What are the sources of stones in glass?
- Insoluble grains of impurities
  - Refractories
  - Due to devitrification
  - All of these
- Q.10 Sheet glass can be made by
- Fourcault machine
  - Pittsburg Process
  - Colburn process
  - All of these

### SECTION-B

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Full form of SQC is \_\_\_\_.
- Q.12 Safety glass is used in automobiles. (True/False)

- Q.13 Littleton method is used to measure softening point of glass. (True/False)
- Q.14 Blisters and seed are bubbles in glass. (True/False)
- Q.15 Glass ceramics have very \_\_\_\_ expansion.
- Q.16 Fourcault is a machine which is used to make bottle glass. (True/False)
- Q.17 Fibre glass is used for heat insulation. (True/False)
- Q.18 Water also attack on glass. (True/False)
- Q.19 Gob feeder is used to collect lumps of hot glass. (True/False)
- Q.20 Stone is a type of glass defect. (True/False)

### SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Explain method of viscosity determination of glass.
- Q.22 Describe origin of thermal stresses in glass.
- Q.23 Discuss water attack on glass.
- Q.24 How annealing of glass is carried out? Explain in brief.
- Q.25 Explain concept of TQM.
- Q.26 Name five colouring oxides used in glass and colour imparted by them.
- Q.27 Explain concept of de-colourisation of glass.
- Q.28 Explain pollution control systems in glass industry.