

No. of Printed Pages : 4  
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220454

**5th Sem.**  
**Branch : Ceramic**  
**Subject : Glass Technology-II**

Time : 3 Hrs.

M.M. : 60

**SECTION-A**

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

- Q.1 Solar glass is primarily used for \_\_\_\_\_?
- a) Building windows      b) Solar panels  
c) Automotive glass      d) Decorative purposes
- Q.2 Annealing is the process of removal \_\_\_\_\_ from glass.
- a) Density                      b) Viscosity  
c) CTE                          d) Strain
- Q.3 \_\_\_\_\_ is used to increase viscosity of glass.
- a) Alumina                      b) Silica  
c) Sodium oxide              d) Chromium oxide
- Q.4 Borosilicate glass is commonly used in which of the following applications?
- a) Windows                      b) Laboratory glassware  
c) Light bulbs                      d) Insulation

- Q.5 What is the process of heating glass to a high temperature to increase its strength called?
- a) Annealing                      b) Tempering  
c) Casting                         d) Blowing
- Q.6 What is the main environmental concern related to glass production?
- a) Air pollution                      b) Water usage  
c) Energy consumption   d) Waste generation

### Section-B

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

- Q.7 Viscosity of molten glass decreases with \_\_\_\_\_ temperature. (Decreasing/Increasing)
- Q.8 Fiber glass is use for heat insulation. (True/False)
- Q.9 Safety glass is used in automobiles. (True/False)
- Q.10 Water also attack on glass. (True/False)
- Q.11 \_\_\_\_\_ is commonly used to cut glass? (Hacksaw / Diamond cutter)
- Q.12 Heat absorbing glasses are commonly used in \_\_\_\_\_. (Automobile windows / Solar panels)

### Section-C

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

- Q.13 Explain the concept of glassy state.

- Q.14 Describe the refractories used in glass tank furnace.
- Q.15 Explain the glass toughening process.
- Q.16 Explain the concept of de-colourisation of glass.
- Q.17 Explain process of annealing.
- Q.18 Explain how strain is detected?
- Q.19 Explain the importance of solar energy.
- Q.20 Describe the manufacturing of fiber glass.
- Q.21 Explain in brief manufacturing of safety glass.
- Q.22 Explain how viscosity of glass is determined?

### Section-D

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

- Q.23 Explain various glass decoration methods.
- Q.24 Describe the process of density measurement of glass.
- Q.25 Explain type of pollution and its controlling measures in glass industry.