

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE - SEMESTER-VIII(NEW) EXAMINATION – SUMMER 2019****Subject Code:2180613****Date:13/05/2019****Subject Name:Glass Facade Engineering****Time:10:30 AM TO 01:00 PM****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Which are the different Engineering properties of glass facade for construction? **3**
- (b) Write advantages of fire resistance glass. **4**
- (c) What are the advantages and disadvantages of Glass? **7**
- Q.2** (a) What is the role of Glass in Green building? **3**
- (b) Give reasons of Glass plate failure. **4**
- (c) What is Green building certification and why it is required? **7**
- OR**
- (c) Write in detail type of glazing system can be used in structural glass **7**
- Q.3** (a) What is U-value and solar factor for glass facade. **3**
- (b) What is an acoustic glass window? **4**
- (c) How to find out the net design and pressure in glass? **7**
- OR**
- Q.3** (a) What is the criterion for thickness of glass in sky scraper? **3**
- (b) Explain thermal shock in Glass. **4**
- (c) Write principal design criteria for the seismic design. **7**
- Q.4** (a) Write short note on :Point fixed Glazing. **3**
- (b) What are the chemical properties of Glass? **4**
- (c) What are the differences between structural glazing and curtain wall? **7**
- OR**
- Q.4** (a) Write Short note on :penetration test for Glasses **3**
- (b) Write the equations for the design of unit skylights rated for performance grade for both positive and negative design pressure. **4**
- (c) How to calculate wind loads from wind speed? **7**
- Q.5** (a) How thermal breakage occur? **3**
- (b) Which are the different types of the loads on curtain wall? **4**

- (c) Describe about Brackets, Fixings and Anchors for finishing of glass construction. 7

**OR**

- Q.5** (a) What are the precautions during handle, transportation, cutting and fixing the glass. 3
- (b) What are the different types of Glazing panels . Explain any one. 4
- (c) Discuss the Specifications and Applications for Laminated glass. 7

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