

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BARCH - SEMESTER- III • EXAMINATION – WINTER 2016

Subject Code:1035005**Date: 23/11/2016****Subject Name: Environmental Science****Time: 10:30AM – 12:30PM****Total Marks: 50****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Draw necessary diagrams where required.
4. Figures to the right indicate full marks.

- Q.1** (a) Describe characteristics of hot & dry climate. **05**
 (b) Differentiate design strategies of moderate & composite climate with diagram. **05**
- Q.2** (a) Explain following terms with necessary diagrams (Any 5): **05**
 1. Dry bulb temperature 2. Wet bulb temperature 3. Mehony table
 4. Passive cooling 5. Time-lag 6. Coriolis force 7. Polar winds
 (b) How Earth-Sun relationship affects the radiation received at earth? **05**
- OR**
- (b) How does wind generate? Explain with diagrams **05**
- Q.3** (a) What is ventilation? And why it is needed? **05**
 (b) How roof forms and overhangs affect wind? Explain with diagrams. **05**
- OR**
- Q.3** (a) Differentiate stack & reverse stack ventilation. **05**
 (b) Explain solar chimney with diagrams. **05**
- Q.4** (a) What should be taken care while using daylight? **05**
 (b) What is daylight factor? **05**
- OR**
- Q.4** (a) Explain Absorbion, Reflection & Transmission of light. **05**
 (b) Explain Sun-Path diagrams with sketches. **05**
- Q.5** Describe any climate responsive traditional building for cold climate with diagram. **10**
- OR**
- Q.5** How landscape can be used to achieve climate responsiveness in design. **10**
