

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
Diploma Architecture - SEMESTER-V EXAMINATION – WINTER 2016

Subject Code: 3356204

Date: 29 /11/2016

Subject Name: Environmental Science and Ecology

Time: 10:30 am to 12:30 pm

Total Marks: 50

Instructions:

- 1. Attempt all questions.**
- 2. Make suitable sketches wherever necessary.**
- 3. Figures to the right indicate full marks.**
- 4. English version in authentic.**

- Q1. (a)** How do you think the study of Environmental Science co-relate with Architecture? **05**
(b) What is Ecosystem? Explain micro, meso and biome ecosystem in detail. **05**
- Q2. (a)** Define the following: **(any five)** **05**
1. Cavity Wall
 2. Precipitation
 3. Equinox
 4. Summer Solstice
 5. Azimuth
 6. Patio
- (b)** Write a short note on ventilation. **05**
- OR**
- (b)** Explain the concept of orientation of building and cross ventilation. **05**
- Q3.** Write down design guidelines for the following climate zones: **(any two)** **10**
1. Hot Dry
 2. Composite
 3. Warm Humid
- Q4. (a)** Write a short note on Solar Solstice in winter and summer season with appropriate sketches. **05**
- OR**
- (a)** Explain Sun path diagram, solar altitude angle and solar azimuth angle. **05**
- (b)** Explain Active and Passive thermal control. **05**
- Q5. (a)** State and explain different elements of climate. **05**
(b) What is Courtyard Planning? State its application & advantages. **05**
