

**DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY,
LONERE – RAIGAD -402 103
Mid Semester Examination – OCTOBER - 2018**

Branch: M-Arch (Environmental)

First Year

Sem.:- I

Subject: Climate Responsive Design -I

Subject Code: - MAREA10100002

Marks: 40

Date: 08/10/2018

Time: - 2 Hr.

Instructions: - 1. The First question is compulsory

2. Answer any THREE out of the remaining.

Q. No.1:- Write Definition in and units/sketch/formula if applicable.

10 Marks

1. True air temperature
2. Wind rows
3. Relative humidity
4. Sun path chart
5. Thermal balance of body
6. Convection
7. Conduction
8. Climate and weather.
9. Macro and micro climate.
10. Heat balance equation for buildings.

Q. No. 2:- Write about different aspect involved in Earth sun relationship

10 Marks

Q. No.3:- Write in detail about hot and dry climate and cold and cloudy.

10 Marks

Q. No. 4:- Write about climatic analysis methods and describe

10 Marks

Q. No. 5:- Calculate Q_c for the and Q_v

10 Marks

Given data:

Room = 3.00m x 6.00m x 3.00m each wall having window of 1.5m x 1.2 m

Wall section U value is 0.63 W/m² deg C. Consider summer temperature as T_o -42 T_i -24

Consider winter temperature as T_o -28 T_i -24

Q. No. 6:- Write about elements of climate. What are factors affecting global climate.

10 Marks