## SCHOOL OF PLANNING AND ARCHITECTURE, VIJAYAWADA

SEMESTER END EXAMINATIONS (SUPPLEMENTARY), JUNE - 2016

## **B.ARCH, I YEAR II SEMESTER**

## **APPLIED CLIMATOLOGY (10110207)**

## Maximum Marks - 50

Time - 2.00 Hours

- a) Answer any Two questions out of 1to 4 questions.
- b) Question No.5 is compulsory and <u>answer any four</u> out of six sub-questions.
- Q1. a) What are the causes of thermal discomfort in buildings? Discuss with respect to tropical (3x5= climates.
  - b) Explain any 2 measures to achieve thermal comfort in buildings for tropical climates.
- Q2. Discuss about the building heat exchange processes. (15M)
- Q3. a) Write a short note on Cool day lighting. Explain (10M) with neat sketches.
  - b) Compare and contrast 'Direct system' with (5M) 'Trombe wall system' with a neat sketch.
- Q4. What are the design principles to be followed for a (15M) building in hot and dry climate? Explain with neat sketches.
- Q5. Answer any four of the following:

(4x5=20M)

- a) Zenith angle and altitude angle
- b) Orientation for good ventilation
- c) Diurnal Range
- d) Day light factor
- e) Stack effect
- f) U value