

**SCHOOL OF PLANNING AND ARCHITECTURE, VIJAYAWADA**  
**B.Arch, I YEAR II SEMESTER EXAMINATION (REGULAR), MAY-2015**

**BUILDING SCIENCE AND SERVICES-CLIMATOLOGY AND THERMAL CONTROL (BS-2)**

**Maximum Marks – 50**

**Time – 2.00 Hours**

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- a) Answer any **Three** questions*  
*b) Question No. 5 is compulsory.*  
*c) Scientific Calculator is allowed.*
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- Q1. Explain the role of sun angles in designing shading devices. (15)
- Q2. What is Psychometric chart and explain various components involved with neat sketches? (15)
- Q3. Elaborate the heat exchange process through the building and how the heat gain and heat loss can be calculated. (15)
- Q4. What are the different design guidelines for attaining Natural ventilation? (15)
- Q5. Write short notes on *any four* of the following. (4 x 5=20)
- a) Green concept.
  - b) Heat Insulation.
  - c) Solar Azimuth.
  - d) Zenith Angle.
  - e) Earth Berm Structure.
  - f) Earth Air tunneling.