

BACHELOR OF ARCHITECTURE (B. ARCH)

Term-End Examination

June, 2014

**BARE-077 : GREEN ARCHITECTURE AND
ENVIRONMENTAL PLANNING
(ELECTIVE - 2)**

Time : 3 hours

Maximum Marks : 70

Note : Question No. 1 is compulsory. Answer any 4 questions from the remaining supplement your answers with neat sketches.

1. Write notes on (any 4) : 14
 - (a) Carbon Cycle
 - (b) LPD (Lighting Power Density)
 - (c) VAV systems (Variable Air Volume)
 - (d) Cooling degree days
 - (e) EER (Energy Efficiency Ratio)
 - (f) Solarium

2. What is meant by 'Environmental Impact Assessment' ? Explain salient features of LEED - India. 14

3. Explain ecology-based approaches in architectural design. 14

4. Explain efficient Envelope design strategy for office buildings in composite climate. 14

5. Discuss Interior Lighting Power requirement calculation as per ECBC, 2007. Also, explain various outdoor lighting control method as per ECBC provision. **14**
6. What are the purposes of introducing natural ventilation in a space ? Mention various means to achieve these. What is meant by wind orientation of a building ? **14**
7. Differentiate the following terms (**any two**) : **14**
- (a) Green building and sustainable building
 - (b) Wet land and Waste land
 - (c) UHI (Urban Heat Island) and Climate change
 - (d) Natural and Anthropogenic sources of air pollution
-