

**BACHELOR OF ARCHITECTURE (B.Arch.)**

**Term-End Examination**

**00325**

**December, 2014**

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

*Time : 3 hours*

*Maximum Marks : 70*

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**Note :** *Question no. 1 is compulsory. Answer any four questions from the remaining. Supplement your answers with neat sketches.*

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1. Write short notes on any **four** of the following :

$$4 \times 3 \frac{1}{2} = 14$$

- (a) BEE (Bureau of Energy Efficiency)
- (b) WWR (Window to Wall Ratio)
- (c) CAV System (Constant Air Volume System)
- (d) Heating degree days
- (e) Trombe Wall
- (f) COP Cooling (COP : Coefficient Of Performance)

2. Explain any *two* of the following pair of terms : 2×7=14
- (a) Green building and Sustainable building
  - (b) Conservation and Preservation
  - (c) UHI (Urban Heat Island) and Climate Change
  - (d) Wetland and Wasteland
3. Explain ecology-based design approach in architecture. What are the salient features of GRIHA Rating ? 14
4. What is 'Energy Auditing' ? How can it be done ? Explain 'Environmental Impact Assessment' with reference to India. 14
5. What are the controls required in a daylighted area of 24 × 7 × 365 use, as per ECBC, 2007. Discuss energy efficient exterior building ground lighting design method. 14
6. Explain the importance of site analysis for appropriate building design. Give examples of few passive cooling strategies. 14
7. Explain three different types of natural ventilation introduced in a building. Mention at least one method/process for each one, while explaining the working principle. 14
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