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Roll No

CE-8044**B.E. VIII Semester**

Examination, June 2015

**Energy Efficient and Green Building
(Elective-II)****Time : Three Hours****Maximum Marks : 70**

Note: i) Solve any five questions out of given eight questions.
ii) All questions carry equal marks.

1. What are the different sustainable practices used in the design and construction phases of Energy Efficient Green Buildings? Explain in short GRIHA? 14
2. What are the different climatic zones and their characteristics, in India? How this data is used in building design? 14
3. Write in short the following building components for 'Energy conscious design'. 14
 - a) Passive cooling.
 - b) Nocturnal cooling
 - c) Roof Surface Evaporative Cooling (RSEC)
 - d) Passive Draft Evaporative Cooling (PDEC)

4. Discuss in detail Earth coupling and Earth air pipe system? 14
5. What are the specific design guidelines for thermal performance of Buildings and related Recommendations? 14
6. Explain "Zero Energy Buildings". What are the different opportunities and challenges in designing "Net Zero Building"? 14
7. What are "Energy efficient air conditioners"? How are they installed with the right size and efficiency? 14
8. Write short notes on any four of the following: $3\frac{1}{2} \times 4 = 14$
 - i) Orientation of Building.
 - ii) IGBC Certification.
 - iii) National Building Code.
 - iv) Isolated Gain.
 - v) Desiccant Cooling
 - vi) Energy Efficient Lighting

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