

## JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST-3 EXAMINATION, JUNE-2016

M.Tech (Construction Management) II Semester

COURSE CODE: 10M11CE215

MAX. MARKS: 35

COURSE NAME: Sustainable Design and Construction

COURSE CREDITS: 3

MAX. TIME: 2 HRS

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*Note: All questions are compulsory. Marks are indicated against questions.*

*Carrying of mobile phone during examinations will be treated as case of unfair means.*

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1. What are your suggestions for foundation and framing system of green homes? How heat and moisture movement can be controlled in such homes. (6)
2. Explain the following techniques of green construction: (i) earth tunnel, (ii) geothermal heating and cooling and (iii) earth berming. (6)
3. What is pervious concrete? What are the advantages and limitations of using pervious concrete for construction? Show a typical section of pervious concrete sidewalk. (6)
4. Write short note on the following green building materials:  
(i) Wool bricks, (ii) Solar tiles, and (iii) Paper insulation. (6)
5. What do you understand by solar HVAC technology? Discuss the working of the following in relation to this technology: (i) Photo-voltaic cooling and (ii) Solar open loop air conditioning using desiccants. (6)
6. Explain the various steps involved in the process of construction waste management. (5)

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