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Total No. of Pages : 02

Total No. of Questions : 09

Masters in Architecture (2013 & Onwards) (Sem.-2)

**SUSTAINABLE ARCHITECTURE**

Subject Code : MACH-204

M.Code : 72093

Time : 3 Hrs.

Max. Marks : 50

**INSTRUCTION TO CANDIDATES :**

1. Question No 1 is compulsory. Attempt 5 questions including compulsory question with minimum one question from each unit. All questions carry equal marks.

1. Write short notes on the following :

- a) Sustainability
- b) Sustainable architecture
- c) Life Cycle Assessment
- d) Carbon footprint
- e) Traditional Construction Methods

**UNIT-I**

2. Are you concerned about environmental and social sustainability in your buildings? If so, what design principle you can adopt as an architect to make your buildings sustainable?
3. Explain the various design features of sustainable buildings. What do you feel is the greatest challenge when it comes to designing for environmental sustainability? How do sustainable buildings can help environmental sustainability?

**UNIT- II**

5. Discuss various Passive Cooling techniques that can be used in northern India to make building comfortable to live in.

6. What are the consequences of building a residence with conventional materials and methods, and why should you consider a green alternative? Discuss the various sustainable building materials that can be used in construction projects in northern India.
7. Discuss how various climatic zones affect the choice of ideal orientation for building in terms of energy efficiency.

### UNIT- III

8. Explain how local methods of construction were used to achieve comfort conditions with examples from Traditional construction methods from any part of India.
9. Write short notes on :
  - a) Thermal Comfort
  - b) Traditional Passive Cooling techniques
  - c) Indoor environment

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.