

**BACHELOR OF ARCHITECTURE (B ARCH)**

**Term-End Examination**

**December, 2012**

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

*Time : 3 hours*

*Maximum Marks : 70*

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*Note : Part A is compulsory. Answer **any two** questions from Part B. Answer **any two** questions from Part C.*

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**PART - A (compulsory)**

1. Explain in brief *any five* of the following: **5x2=10**
- (a) Agenda 21.
  - (b) Ecological Building.
  - (c) Leopold Matrix.
  - (d) GRIHA.
  - (e) VOC in paints.
  - (f) Heat Island.
  - (g) Resilience Stability of an ecosystem.

**PART - B (Answer any two)**

2. (a) For a sustainable building design, what are the aspects that you would consider at the stage of site selection? **10**
- (b) What are the passive design strategies that have been traditionally adopted in habitats in 'desert climate' ? **5**
3. (a) Discuss the influence of 'skin of a building' on the temperature and quality of air inside a building. **5**
- (b) What is life cycle energy audit of a building? What are the aspects covered in this audit? **10**
4. (a) How do you reduce pollution and land development impacts from automobile use while designing a township? **5**
- (b) What is light pollution? Discuss strategies for reducing light pollution for : **10**
- (i) Interior lighting
- (ii) Exterior lighting.

**PART - C (answer any 2)**

5. (a) 'Industrialisation is the parameter of modernity and a necessary element of socio economic development of a nation.' Discuss on this statement in the context of industrial developments impact on environmental degradation. 7
- (b) Explain in the context of sources of air pollution. 8
- (i) Natural sources
- (ii) Anthropogenic sources
6. (a) "Most of the Indian rivers receiving urban and industrial effluents (wherever large cities and industrial complexes are located at or near the banks of the rivers) are heavily polluted due to point pollution at the downstream of the large cities and industrial centres". Discuss in the context of River Yamuna. 8
- (b) What is meant by ecological pyramids? What are the various types of ecological pyramids? 7
7. (a) What are the types of solid waste pollutants based on their sources? 7
- (b) List the post independence water control acts that have been legislated in India and explain any one in detail. 8
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