

# 315316

**12526**

**3 Hours / 70 Marks**

Seat No.

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- Instructions* – (1) All Questions are *Compulsory*.  
(2) Illustrate your answer with neat sketches wherever necessary.  
(3) Figures to the right indicate full marks.  
(4) Assume suitable data, if necessary.  
(5) Use of Non-programmable Electronic Pocket Calculator is permissible.  
(6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

- 1. Attempt any FIVE of the following: 10**
- Define Energy Conservation.
  - Define Green Building.s
  - State the principles of green building.
  - Enlist any two benefits of green building.
  - State any four sustainable materials required for green building.
  - Give the meaning of 'Indoor Environmental Quality' (IEQ).
  - Define the term 'Green Building Audit'.
- 2. Attempt any THREE of the following: 12**
- Explain the salient features of Energy Conservation Act-2001.
  - Explain salient features of green building.
  - Discuss the characteristics of any four green building materials.
  - Explain the role of green building in sustainable development.

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- 3. Attempt any THREE of the following: 12**
- a) Explain the role of HVAC system in green building.
  - b) Explain the key elements involved in planning a green building audit.
  - c) List any four major benefits of conducting green building audit.
  - d) Describe the economic impact of green building construction on stakeholders.
- 4. Attempt any THREE of the following: 12**
- a) Suggest any four corrective actions you would recommend after green building audit.
  - b) State the functions of Government organisation MNRE (Ministry of New and Renewable Energy).
  - c) Differentiate between GRIHA and IGBC rating system of green building.
  - d) Explain LEED criteria for building operation and maintenance.
  - e) Explain the functions of BEE in detail.
- 5. Attempt any TWO of the following: 12**
- a) Explain the benefits to the college after getting IGBC green rating certification for college building.
  - b) Design a sample checklist for auditing any green building.
  - c) Explain green roofing and its benefits.
- 6. Attempt any TWO of the following: 12**
- a) Explain strategies for the sustainable site design of green building.
  - b) Explain the role of MEDA in energy conservation in the city.
  - c) Explain strategic implementation for ensuring continuous improvement after a green building audit is completed.
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