

- Q.17 What are some of the major sustainability rating systems for buildings ?
- Q.18 What are the three pillars of sustainability in building design ?
- Q.19 What are the most efficient HVAC systems for sustainable buildings ?
- Q.20 What methods can be used to reduce water usage in buildings, like rainwater harvesting and greywater reuse Systems ?
- Q.21 What strategies can be employed to minimize construction waste during the building process ?
- Q.22 What are the potential economic benefits of incorporating sustainable design practices in a building project ?

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 What are the benefits of using energy-efficient appliances and lighting fixtures ?
- Q.24 How can building orientation, window placement, and shading devices contribute to energy savings ?
- Q.25 Explain the concept of passive solar design and it can be implemented in different climates

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220264C

6th Sem. / Arch. Asstt., Architectural

Subject : Sustainable Architecture

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 Which of the following is a sustainable construction material commonly used in green buildings ?
- a) Conventional concrete b) Vinyl flooring
c) Bamboo flooring d) Single pane window
- Q.2 Which of the following is an example of passive solar design in green buildings ?
- a) Large windows facing north
b) Shading devices in the south side
c) Limited insulation in Walls
d) Air conditioning running continuously

- Q.3 In the context of energy efficient lighting, what does LED stand for ?
- Light Emitting Diode
 - Low Energy Demand
 - Limited Environment Degradation
 - Long lasting Energy Dispersion
- Q.4 Which renewable energy source is commonly integrated into green building systems for power generation ?
- Coal
 - Solar
 - Natural Gas
 - Diesel
- Q.5 What is the purpose of using recycled materials in green building construction ?
- Increase construction costs
 - Contribute to landfill waste
 - Reduce the demand for new raw materials
 - Enhance energy efficiency
- Q.6 How does green building contribute to occupant health ?
- Poor indoor air quality
 - Exposure to harmful chemicals
 - Emphasis on natural light and ventilation
 - Limited access to green spaces

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. (6x1=6)

- Q.7 GRIHA has been prepared by _____.
- Q.8 Sustainable planning considers environmental, social and _____ impacts of a building.
- Q.9 LEED gives rating in form _____.
- Q.10 What gives the full form of IGBC _____.
- Q.11 The three elements of sustainability are also known as _____ of sustainability.
- Q.12 _____ is termed as excessive brightness that causes visual discomfort

SECTION-C

Note: Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

- Q.13 What are the primary design principles for sustainable buildings ?
- Q.14 What sustainable materials are available and how can they be used effectively ?
- Q.15 What are passive design strategies to optimize natural lighting and ventilation ?
- Q.16 What are the different methods for collecting and reusing rainwater in a building ?