

- 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. $(2 \times 8 = 16)$

- 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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6th Sem. / Arch. Asstt., Architectural Subject : Sustainable Architecture

Time : 3 Hrs.

M.M. : 60

SECTION-A

Note: Multiple choice questions. All questions are compulsory $(6 \times 1 = 6)$

- 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 ?

- a) Light Emitting Diode
- b) Low Energy Demand
- c) Limited Environment Degradation
- d) Long lasting Energy Dispersion

Q.4 Which renewable energy source is commonly integrated into green building systems for power generation ?

- a) Coal
- b) Solar
- c) Natural Gas
- d) Diesel

Q.5 What is the purpose of using recycled materials in green building construction ?

- a) Increase construction costs
- b) Contribute to landfill waste
- c) Reduce the demand for new raw materials
- d) Enhance energy efficiency

Q.6 How does green building contribute to occupant health ?

- a) Poor indoor air quality
- b) Exposure to harmful chemicals
- c) Emphasis on natural light and ventilation
- d) Limited access to green spaces

SECTION-B

Note: Objective/ Completion type questions. All questions are compulsory. $(6 \times 1 = 6)$

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 sustainabiliy .

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. $(8 \times 4 = 32)$

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 ?