

Total No. of Questions : 12]

SEAT No. :

P3310

[Total No. of Pages : 3

[4959]-31

B.E. (Civil)

H : GREEN BUILDING TECHNOLOGY (Open Elective - IV)
(2008 Pattern)

Time : 3 Hours]

[Max. Marks : 100

Instructions to the candidates:

- 1) Answer any three questions from Section-I and three questions from Section-II.*
- 2) Figures to the right indicate full marks.*
- 3) Your answers will be valued as a whole.*
- 4) Assume suitable data, if necessary.*

SECTION - I

- Q1)** a) Explain and discuss sustainable site selection criteria. [9]
b) Discuss the uses of following : [3+3+3]
i) Building layout plan
ii) Solar Energy
iii) Fresnel Lens

OR

- Q2)** a) Differentiate between direct and indirect lighting. [6]
b) What is solar concentrator? Discuss. [6]
c) Why the ventilation is necessary? Explain how natural ventilation utilized. [6]
- Q3)** a) Compare the active and passive architecture. [6]
b) Explain the concept of Embodied Energy. [5]
c) Give the selection criteria for material of surface treatment. [5]

OR

P.T.O.

- Q4)** a) Explain hybrid system of active and passive refrigeration and air conditioning. [8]
b) Explain the Energy audit of Building in detail. [8]

- Q5)** a) Discuss the Green rating of Building. [8]
b) What you understand by environmental clearance of buildings? Discuss. [8]

OR

- Q6)** a) Discuss the improvement for thermal comfort. [8]
b) Discuss the followings : [8]
i) LEED Criteria & its application
ii) Carbon credit.

SECTION - II

- Q7)** a) Explain water efficient landscaping. [6]
b) Explain any one method with suitable sketch for bore well recharging. [6]
c) Discuss the minimization of water use. [6]

OR

- Q8)** a) Give the note on following : [3+4+4]
i) Smart water taps
ii) Anaerobic filters
iii) Ion exchanger
b) Discuss about advanced biogas plant. [7]

- Q9)** a) Explain what is indoor environmental quality. [8]
b) Discuss how the quality of indoor environment is maintained? [8]

OR

- Q10)** a) Differentiate the following : [4+3]
i) Adhesives and Sealants
ii) Paints and Coatings
b) Discuss the uses of following : [3+3+3]
i) Composite Wood
ii) Bamboo
iii) Jute

Q11) a) How the recycling of building materials is beneficial? Discuss. [8]

b) Discuss the Life cycle analysis in brief. [8]

OR

Q12) a) Explain the following : [4+3+3]

i) Operation Phase

ii) Construction Phase

iii) Use of Foudry sand

b) Explain in details about Construction waste management. [6]

