PVP 14

Code: CE7T5E

IV B.Tech - I Semester – Regular/Supplementary Examinations
October - 2018

GREEN BUILDINGS
(CIVIL ENGINEERING)

Duration: 3 hours Max. Marks: 70

PART – A

Answer ***all*** the questions. All questions carry equal marks

11 x 2 = 22 M

1.

a) List the benefits of Green Building.
b) Name any two renewable sources of power.
c) State the full form of LEED.
d) Define passive solar heating.
e) List the elements of building fabrics.
f) List the situations where artificial ventilation is preferred over natural ventilation.
g) State the function of a photovoltaic cell.
h) Define climate and energy.
i) Define day light factor.
j) Define sustainable architecture.
k) List out the sustainable building practices.

PART – B

Answer any ***THREE*** questions. All questions carry equal marks.

3 x 16 = 48 M

2. a) Define and explain the concept of a Green Building within Indian context. 8 M

b) Describe the major steps to be taken to reduce energy consumption in green buildings. 8 M

3. a) Define macro and micro climatic changes. State the types and factors affecting micro climate. 8 M

b) Analyze the role of renewable sources in green buildings. 8 M

4. a) Define form. Illustrate the different aspects to be considered in analyzing the forms of building. 8 M

b) State the purpose of using building fabrics and the factors to be considered in their selection and design. 8 M

5. a) Illustrate the different types of natural ventilation. 8 M

b) Describe the water conservation aspects to be considered in green buildings. 8 M

6. a) Describe the green building rating systems available in India. 8 M

b) Outline the steps to be taken to monitor energy consumption and create energy awareness. 8 M