

Code: CE7T5E

**IV B.Tech - I Semester – Regular/Supplementary Examinations
March 2021**

**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) Define Green building.
- b) Define building fabrics.
- c) State the purpose of ventilation.
- d) Define an artificial lighting.
- e) State the purposes of carrying out internal planning.
- f) Differentiate between macro and micro climate change.
- g) List the steps to conserve energy in a building.
- h) Define passive cooling.
- i) List the steps to be followed to reduce heat in building.
- j) Define an eco-home.
- k) List any two green building rating systems.

PART – B

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

3 x 16 = 48 M

2. a) Analyze the importance of green building construction in the today's polluted world. 8 M
b) Describe the concept of low energy constructions. 8 M
3. a) Describe the impact of solar energy in the design of green building. 8 M
b) Illustrate the merits and demerits of building construction using passive solar energy. 8 M
4. a) Classify Grouping of buildings as per National Building Code of India. 8 M
b) Describe the important thermal properties of building materials. 8 M
5. a) Illustrate the different types of Natural ventilation in buildings. 8 M
b) Elaborate the different forms of cooling systems in buildings. 8 M
6. a) Describe the salient features of Energy Conservation Building Code. 8 M
b) Illustrate the salient features of green buildings constructed in south India. 8 M