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**Question Paper Code: 58161**

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2019

One credit Course

Civil Engineering

15UCE861– GREEN BUILDING CONCEPTS

(Regulation 2015)

Duration: 1.30 hours

Maximum: 50 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- India's largest LEED gold-rated Core & Shell green building is situated in
  - Mumbai
  - New Delhi
  - Chennai
  - Trivandrum
- The most common green house gas present in the atmosphere is
  - CO<sub>2</sub>
  - CH<sub>4</sub>
  - CFC
  - HFC
- Sulfur Hexafluoride is
  - SF<sub>6</sub>
  - S<sub>6</sub>F
  - S<sub>6</sub>F<sub>6</sub>
  - (SF)<sub>6</sub>
- The IGBC was formed in the year
  - 2000
  - 2001
  - 2002
  - 2003
- Which of the following is the natural impact for the cause of global warming?
  - volcanoes
  - CO<sub>2</sub>
  - CH<sub>4</sub>
  - NO<sub>2</sub>
- The sustainable concrete reduces the emission of
  - CO<sub>2</sub>
  - CH<sub>4</sub>
  - CFC
  - HFC

7. The green building Rajiv Gandhi International Airport is in  
 (a) Chennai (b) Bangalore (c) Hyderabad (d) No Mumbai
8. The actual water consumption of a building and the general average water consumption rate is known as  
 (a) Water resources index (b) Water consumption index  
 (c) Biodiversity index (d) Water reduction index
9. The expansion for BEE is  
 (a) The Bureau of Environment Efficiency (b) The Bureau of Energy Efficiency  
 (c) The Building with Environment Efficiency (d) The Building with Energy Efficiency
10. The expansion of ECBC is  
 (a) Energy Consumption Building Code (b) Energy Conservation Building Code  
 (c) Energy Conservation Building Committee (d) Energy Consumption Building Committee

PART – B (5 x 2= 10Marks)

11. Explain the triple bottom line.
12. List some of the effects of global warming.
13. Define the term green house effect.
14. What do you mean by sustainability?
15. How can you define green building?

PART – C (2x 15= 30 Marks)

16. (a) (i) Explain in detail about the green buildings and the materials used in green buildings. (10)  
 (ii) Briefly explain the various rating agencies for green buildings. (5)
- Or
- (b) Explain in detail about the effects of global warming. (15)
17. (a) What are the green house gases? Mention the sources of the green house gases. (15)
- Or
- (b) (i) As a human being what are the remedial measures that you are going to practice to avoid the effects of global warming? (8)  
 (ii) Compare the conventional buildings and green buildings. (7)