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Question Paper Code: 98164

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2024

One credit

Civil Engineering

21UCE861 - GREEN BUILDING CONCEPTS

(Regulations 2021)

(Common to All Branches)

Duration: 1.30 minutes

Maximum: 50 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Which of the following is a disadvantage of green building? CO1-U
 - (a) Increases 15-20% cost as compared to normal building
 - (b) Modern techniques are required
 - (c) Experts technicians are required
 - (d) All of the above
2. For a gold LEED certification, how many points are required? CO1-U
 - (a) 40-49
 - (b) 60-79
 - (c) 50-59
 - (d) 80-110
3. What rating did the Government of India make mandatory for government buildings in 2010? CO1-U
 - (a) GRIHA - 2 Star
 - (b) GRIHA – 3 Star
 - (c) Gold
 - (d) Platinum
4. Which of the following rating systems are currently working in India? CO1-U
 - (a) LEED
 - (b) GRIHA
 - (c) Both A & B
 - (d) None of the above
5. Full Name of TERI CO1-U
 - (a) The Energy & resources Institute
 - (b) The Energy & rating Institute
 - (c) The Energy & resources India
 - (d) The Energy & Research Institute
6. How many set of criteria formulated by GRIHA for Rating the building? CO1-U
 - (a) 34
 - (b) 33
 - (c) 32
 - (d) 31

7. The expansion of ECBC is CO1-U
- (a) Energy Consumption Building Code
 (b) Energy Conservation Building Code
 (c) Energy Conservation Building Committee
 (d) Energy Consumption Building Committee
8. _____ is best suited to extinguishing oil or flammable liquid fire. CO1- U
- (a) Soda acid (b) Vaporizing liquid (c) Foam (d) Dry chemical
9. How many points are Minimum to earn in order to Achieve LEED Certifications CO1- U
- (a) 35 (b) 40 (c) 55 (d) 45
10. India's first green building located on CO2- U
- (a) ITC Green Centre, Gurgaon (b) CII–Sohrabji Green Business Centre, Hyderabad
 (c) Wipro Technologies, Gurgaon (d) Suzlon one Earth, Pune

PART – B (5 x 2= 10 Marks)

11. Define the term greenhouse effect. CO1-U
12. Discuss SHGC CO1-U
13. Explain Concentrating solar power (CSP) CO1-U
14. Define U-value or What is Heat Transfer co-efficient? CO1-U
15. Define global warming. CO1-U

PART – C (2 x 15= 30 Marks)

16. (a) Briefly explain the green buildings and materials used in green buildings. CO1-U (15)
- Or
- (b) Briefly explain the green building roofing concept and its uses. CO1-U (15)
17. (a) Briefly explain the waste disposal management and its types. CO1-U (15)
- Or
- (b) Explain in detail about the green buildings in different climatic regions. CO1-U (15)