

**Elective - I : Sustainable Resource Management in Civil Engineering**

P. Pages : 1



**NKT/KS/17/7438**

Time : Three Hours

Max. Marks : 80

- Notes :
1. All questions carry marks as indicated.
  2. Solve Question 1 OR Questions No. 2.
  3. Solve Question 3 OR Questions No. 4.
  4. Solve Question 5 OR Questions No. 6.
  5. Solve Question 7 OR Questions No. 8.
  6. Solve Question 9 OR Questions No. 10.
  7. Solve Question 11 OR Questions No. 12.

1. What are sustainable goals? Who has prescribed these goals. **13**  
**OR**
2. What are the techniques adopted in managing resources in construction Industries. **13**
3. Explain in detail the concept of zero waste production in construction engineering. **14**  
**OR**
4. How the industrial waste can be utilized in construction industries? Explain with examples. **14**
5. Enumerate 3R of water conservation and explain them in detail. **13**  
**OR**
6. What is grey water? Why and how it is treated. **13**
7. What are the disadvantages of Non-renewable energy sources? Explain the effects on the human health. **13**  
**OR**
8. Enumerate various renewable energy sources. Explain their potential with reference to Indian conditions. **13**
9. Discuss any seven human health issues related with construction activity. **14**  
**OR**
10. Discuss effect of light, heat and humidity on human health. **14**
11. Enumerate and discuss the provisions of National Building codes for Life Cycle Costing. **13**  
**OR**
12. What are the different techniques adopted for Life cycle costing? **13**

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