

B.E. (Civil Engineering) Seventh Semester (C.B.S.)

Elective - I : Sustainable Resource Management in Civil Engineering

P. Pages : 1

NRT/KS/19/3522

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.
 8. Due credit will be given to neatness and adequate dimensions.
 9. Assume suitable data whenever necessary.
 10. Illustrate your answers whenever necessary with the help of neat sketches.

1. Define sustainability. Explain the need of sustainable resource management in civil engineering. **13**
- OR**
2. Explain the need of energy saving through the use of alternative green construction materials. **13**
3. Explain concept of zero waste Production in construction engineering. **13**
- OR**
4. Explain about alternative building materials such as CMB, AAC Blocks. **13**
5. Write an explanatory note on sustainable water management. **13**
- OR**
6. Explain about Grey water treatment. **13**
7. Write notes on **14**
 - i) Geothermal energy.
 - ii) Solar energy.
- OR**
8. Explain **14**
 - i) Energy conservation.
 - ii) Introduction to ECBC.
9. What precautions of health should be taken during the construction work? **13**
- OR**
10. Explain the terms, effective temperature dry bulb temperature, wet bulb temperature and relative humidity. **13**
11. Define National building code. Write the scope and applicability of code. What is Alteration? **14**
- OR**
12. Explain. **7**
 - i) Provision of National Building code.
 - ii) Life cycle costing. **7**
