

Total number of printed pages—2

43(5) STR-V(5·5)

2015

STRUCTURE V

Paper : ENG-5·5

Full Marks : 100

Time : Three hours

The figures in the margin indicate full marks for the questions.

PART A

Answer **any four** Questions. 4×10

1. What are the components of plain concrete ? What are performance improves in concrete composition ? List down the various types of cement as classified by Bureau of Indian standards (RIS) ?
2. Describe the process of mixing, placing, compaction and curing of concrete.

Contd.

3. Write a note on strength, durability workability requirements of a concrete mix.
4. Discuss and Differentiate the working stress and limit state method of RCC design.
5. Write a short note on the loads and Force in general design consideration.

PART B

Answer any four questions. $4 \times 15 = 60$

1. List down the steps in Indian Standard method of concrete mix design.
2. Draw and detail a dog legged staircase. Assume any required data.
3. Design and detail a square footing for a load of $200kN$. Assume any required data.
4. Draw and detail a two way slab. Assume any required data.
5. Design and detail a column for axial load of $150kN$. Assume any required data.