Combined First and Second Semester B.Tech. Degree Examination, April 2014
(2013 Scheme)
13.106 : BASIC CIVIL ENGINEERING (ABEFHMNPSTU)

Time : 3 Hours  Max. Marks : 100

PART – A

Answer all questions. Each question carries 4 marks.
1. Briefly explain the advantages of Total Station.
2. Differentiate between structural steel and reinforcement steel. Give examples.
3. Write short note on workability of concrete.
4. Explain the situation where combined footing is suggestive than isolated footing.
5. Mention the sources of air pollution.  (5x4=20 Marks)

PART – B

Answer any full questions from each Module. Each question carries 20 marks.

Module – I

6. a) What are the uses of contour maps?
    b) The following readings were taken with a dumpy level. The instrument was shifted after 3rd and 6th readings. Calculate the reduced levels of all stations. Assume the RL of the first station as + 100.00.

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<td>1.900</td>
<td>2.750</td>
<td>2.220</td>
<td>1.550</td>
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    c) Mention the temporary adjustments of a level.

    OR

P.T.O.
7. a) Explain the principles of surveying.
   b) Explain the procedure, field booking and reduction of levels in alignment of roadways in leveling work.

Module – II

8. a) What are the functions of a foundation ?
   b) Explain the different types of shallow foundations with sketches.
   c) State the characteristics of English Bond.

   OR

9. a) What are the desirable qualities of bricks used in brick masonry ?
   b) Explain the requirements of good plaster and the types of mortar used in plastering.
   c) Mention the advantages and disadvantages of different types of paints.

Module – III

10. a) What are the desirable qualities of fine and coarse aggregates used for concrete ?
    b) Explain the common types of steel used in construction.

    OR

11. a) Enlist the ingredients of concrete. Explain the different tests on cement.
    b) What do you mean by proportioning of concrete ? Explain the preparation of concrete.

Module – IV


    OR

13. Write short notes on :
    i) Greenhouse effect
    ii) Ozone layer
    iii) Acid rain
    iv) Deforestation