



Reg. No. :

Name :

**Combined First and Second Semester B.Tech. Degree
Examination, March 2018
(2013 Scheme)**

**13.106 : BASIC CIVIL ENGINEERING
(ABEFHMNPRSTU)**

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions. **Each** question carries **4** marks.

1. Explain the temporary adjustments of a level.
2. What are the different types of flooring materials ?
3. What are the advantages of RCC over plain cement concrete ?
4. What are the different types of steel used in building construction ?
5. What is Ozone layer depletion ?

(5×4=20 Marks)

PART – B

Answer **one full** question from **each** Module.

Module – I

6. a) Explain the objectives and principles of surveying.

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b) The following staff readings were observed successively with level, the instrument having been moved forward after the second, fourth and eighth readings.

0.875, 1.235, 2.210, 1.385, 2.830, 3.125, 4.125, 0.120, 1.875, 2.030, 3.765

The first reading was taken with the staff held upon a bench mark of elevation 132.135. Enter the readings in level book-form and reduce the levels. Apply the usual checks. Find also the difference in level between first and last points.

14

OR



7. a) Explain the various methods used for computation of areas. **10**
- b) The following perpendicular offsets were taken at (20 m) intervals from a survey line to an irregular boundary line :
- 3.25, 5.60, 4.20, 6.65, 8.75, 6.20, 3.25, 4.20, 5.65
- Calculate the area enclosed between the survey line, the irregular boundary line and the first and last offsets, by the application of :
- a) Average ordinate rule
- b) Trapezoidal rule and
- c) Simpson's rule. **10**

Module – II

8. a) Explain with neat sketches the different types of foundation. **10**
- b) Explain the different components in the building and the materials used for it. **10**

OR

9. a) Explain the process of plastering and painting. **10**
- b) Explain with neat sketches the different types of stone masonry. **10**

Module – III

10. a) Explain the various tests on cement. **10**
- b) Explain briefly the process of manufacturing of concrete. **10**

OR

11. a) What are the ingredients of concrete ? Explain the function of each of them. **10**
- b) Explain any one experiment to determine the workability of concrete. **10**

Module – IV

12. Explain the various causes of environmental pollution and the measures to prevent it. **20**

OR

13. Write in detail the concept of sustainable building. **20**
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