



Reg. No. :

Name :

**Combined First and Second Semester B.Tech. Degree
Examination, April 2015
(2008 Scheme)
08-106 : BASIC CIVIL ENGINEERING
(CMNPHESTARUFBS)**

Time : 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions. **Each** question carries **5** marks.

1. List the corrections to be applied for the measured length of a line.
2. Explain the various methods adopted for direct ranging of a survey line.
3. Write short notes on distomat.
4. What are the different factors to be considered for the selection of site of a building ?
5. List the different types of roof covering materials.
6. What is fineness modulus ? How is it determined in the laboratory?
7. What are the different types of sanitary fittings ?
8. Differentiate between single stack system and one pipe system of plumbing.



(8x5=40 Marks)

PART – B

Module – I

Each question carries **20** marks.

9. a) What are the different methods used for measuring distance along a sloping ground ? Explain. 10
- b) To measure a base line, a steel tape 30 m long standardized at 15°C with a pull of 100 N was used. Find the correction per tape length if the temperature at the time of measurement was 20°C and the pull exerted was 160 N. If the length of 250 m is measured on a slope of 1 in 4, find the horizontal length. Take $E = 2.1 \times 10^5 \text{ N/mm}^2$. $\alpha = 11.2 \times 10^{-6}/^\circ\text{C}$ and cross sectional area of tape = 0.08 cm². 10

OR



10. a) What are the temporary adjustments of a dumpy level ? Explain. 10
- b) The following consecutive readings were taken with a level and a 4 m. levelling staff along a continuously sloping line AB at a common interval of 20 m; 0.385, 1.030, 1.925, 2.825, 0.625, 2.005, 3.110. The R.L. of the first point was 200 m. Enter the readings in a level book and calculate the reduced levels of each point. Calculate the gradient of the line joining the first and the last point. 10

Module – II

11. a) Explain with neat sketches the different types of shallow foundations used in building construction. 10
- b) Define safe bearing capacity of soil. Describe any one method used for determining it. 10

OR

12. a) What are the advantages and disadvantages of English bond over Flemish bond ? 10
- b) Explain with neat sketches the different types of stone masonry. 10

Module – III

13. a) What are the ingredients of concrete ? Briefly explain the desirable qualities of each one. 10
- b) What are the different tests on cement ? Explain the test for determining the setting time of cement. 10

OR

14. a) What are the different steps involved in the preparation of concrete ? Explain. 10
- b) What is meant by workability of concrete ? Describe any one method used for determining it. 10