



Reg. No. :

Name :

**Combined First and Second Semester B.Tech. Degree Examination,
May/June 2012
(2008 Scheme)
08-106 : BASIC CIVIL ENGINEERING**

Time : 3 Hours

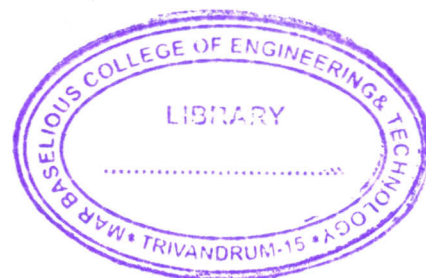
Max. Marks: 100

PART – A

Answer **all** questions, **each** question carries **5** marks.

40

1. What are the principles of surveying ?
2. List the various equipments used in chain surveying.
3. What are the uses of contour maps ?
4. What are the different components of a building ?
5. What are the desirable qualities of a good brick ?
6. List the important qualities of a good paint.
7. What are the different types of stairs used in buildings ?
8. Write notes on :
 - 1) Traps
 - 2) Soak pit.



P.T.O.



PART – B
MODULE – I

Each question carries **20** marks.

9. a) What is meant by ranging out a survey line ? Explain in detail reciprocal ranging. 8
- b) The following consecutive readings were taken with a dumpy level. 1.535, 2.020, 2.720, 2.965, 3.015, 2.625, 1.620, 1.895, 2.320, 2.710, 1.960. The instrument was shifted after the 4th, 7th and 9th readings. RL of 1st point was 120.000 m. Rule out a page of a level field book and find the reduced levels of all other stations. Apply the arithmetic check. 12

OR

10. a) Discuss the different methods of chaining along a sloping ground. 8
- b) A line was measured with a steel tape which was exactly 30 m at 20°C and at a pull of 50 N. Distance measured by the tape was 385.482 m. Temperature during measurement was 26°C and pull applied was 70 N. The tape was uniformly supported during measurement. Find the true length of the line if the cross sectional area of tape was 3 mm² and coefficient of expansion is 1.15×10^{-5} per °C, $E = 2.1 \times 10^5$ N/mm². 12

MODULE – II

11. a) What are the different types of stone masonry ? Explain with sketches. 10
- b) Describe the different types of doors used in buildings. 10

OR

12. a) Write notes on different materials used for making partitions. 5
- b) What are the different types of sloping roof ? Explain with sketches. 15

MODULE – III

13. a) What are the desirable qualities of fine and coarse aggregates used for making concrete ? 10
- b) Explain the different stages in the preparation of concrete. 10

OR

14. a) What are the different types of vertical transportation systems in buildings ? 12
- b) What are the different systems of plumbing used in buildings ? 8