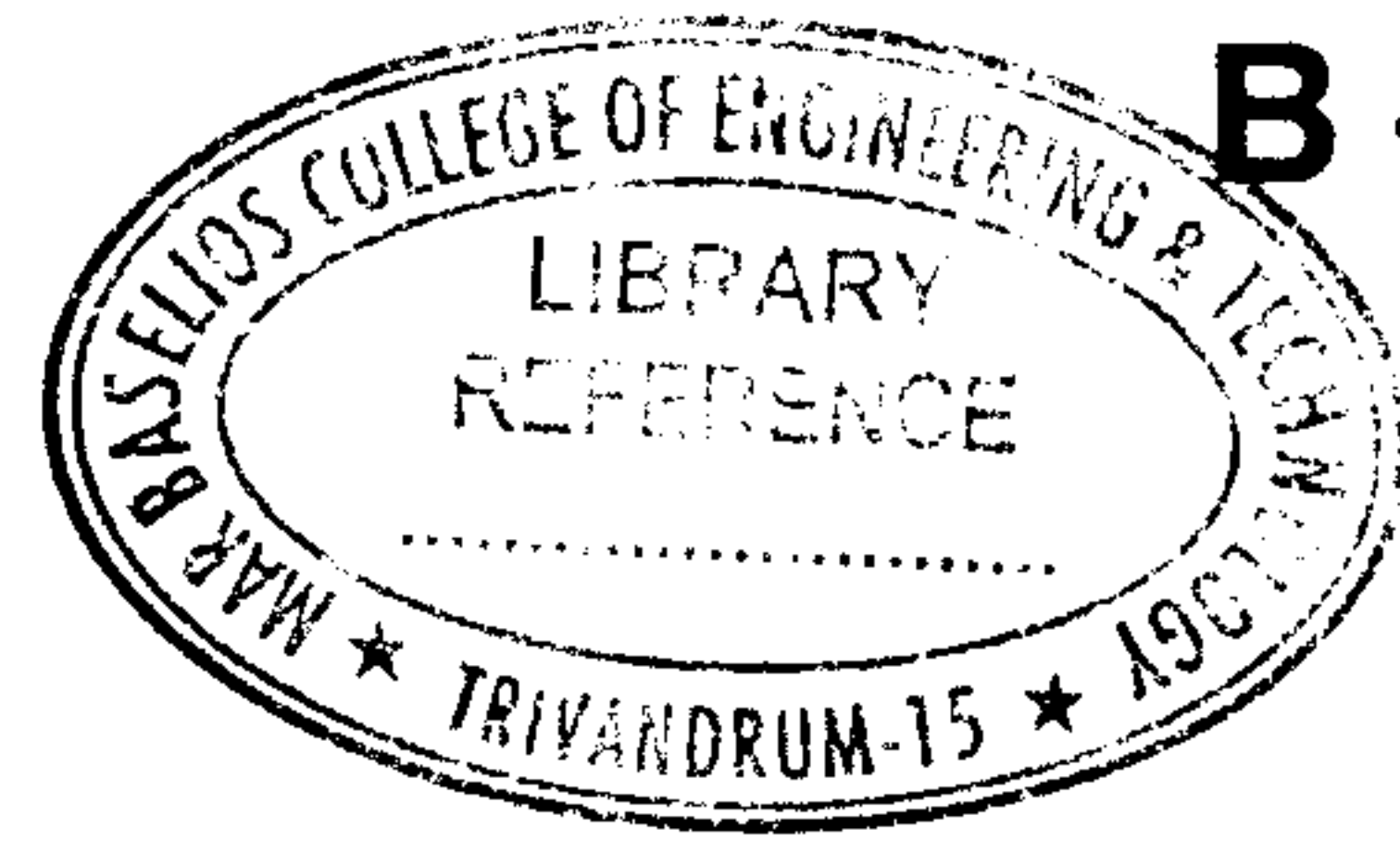




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B – 5231

Reg. No. :

Name :

**Combined First and Second Semester B.Tech. Degree
Examination, February 2017
(2008 Scheme)**

**08-106 : BASIC CIVIL ENGINEERING
(CMNPHERUFBS)**

Time : 3 Hours

Max. Marks : 100

PART – A

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

1. What are the characteristics of contours ?
2. Explain Trapezoidal rule.
3. Explain any one method of chaining on sloping ground.
4. What is meant by safe bearing capacity of soil ?
5. Explain the term foundation. List the functions of foundation.
6. What are the objects of providing plastering to exposed walls ?
7. Distinguish between mild steel and HYSD steel.
8. List the different types of stairs.

(8×5=40 Marks)

PART – B

Answer **one full** question from **each** Module. **Each** question carries **20** marks.

Module – I

9. a) Explain the various corrections for linear measurements. **10**
- b) A 30 m tape was standardized at a temperature of 15°C. Its sectional area is 7 mm², weight is 12 N and coefficient of thermal expansion is 11×10^{-6} per °C. The tape is stretched over 3 supports at the same level and at equal intervals. Calculate the actual length between the end of graduations when temperature equals 25°C, pull equals 160 N and $E = 2.1 \times 10^5$ N/mm². **10**

OR

P.T.O.



10. a) Explain the temporary adjustments of a dumpy level. **8**
- b) The following consecutive readings were observed with a level on a continuously sloping ground at an interval of 30 m. 1.550, 1.950, 2.310, 2.655, 3.170, 0.530, 1.850, 2.755, 0.300, 1.730, 2.15. Enter these readings in a level field book and calculate the reduced levels of all points by height of collimation method. Also find the gradient of the line joining the first and last point. The first reading was taken on benchmark of reduced level = 380. **12**

Module – II

11. a) Explain with the help of a neat sketch how the bearing capacity of soil is determined in the field. **10**
- b) What are the various stages or processes involved in painting of surfaces ? **10**

OR

12. a) What are the qualities of good bricks ? **8**
- b) Describe briefly the different types of floorings that are normally used in modern buildings. Also state the merits and demerits of each type. **12**

Module – III

13. a) What is the meaning of grading of aggregate ? Explain the use of grading curve. **10**
- b) Define consistency of cement. Describe the procedure for determining it. **10**

OR

14. a) What are the qualities of fine aggregate used for concrete work ? **8**
- b) What are the advantages and disadvantages of pre-cast concrete ? **6**
- c) Explain the purpose and methods of curing of concrete. **6**
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