

2E1013

Roll No. : _____

Total Printed Pages : **2****2E1013**

B. Tech. (I Year) (Sem. II) (Main/Back) Examination, June/July - 2012
Common to All Branches of Engg.
(205(A)) Civil Engineering

Time : 3 Hours]

[Maximum Marks : 80

[Min. Passing Marks : 24

Attempt any five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary.) Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

Use of following supporting material is permitted during examination.
(Mentioned in form No. 205)

1. _____ Nil _____ 2. _____ Nil _____

UNIT - I

- 1 (a) Define natural bed of stone and discuss its importance. What is meant by dressing of stone ?
(b) Enumerate the qualities of good brick ? What are the merits of bricks over stones ?

OR

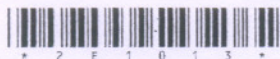
- 1 (a) Discuss various field tests for portland cement ? Compare the suitability of lime and cement mortar ?
(b) Discuss seasoning of timber ? Discuss characteristics of good paint and varnish ?

UNIT - II

- 2 (a) What are the principles of planning ?
(b) What are the building bye-laws ?

OR

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- 2 (a) What is foundation ? Describe various methods of improving bearing capacity of soils ?
(b) What are the characteristics of a pile foundation ? Describe briefly various types of piles generally used for foundation.

UNIT - III

- 3 (a) What are the chain and tape corrections ? What are the different sources of errors in chaining ?
(b) What are the various electronic distance measurement methods ?

OR

- 3 (a) Define terms magnetic declination and local attraction.
(b) What are the errors in compass survey ? Discuss different methods of direction measurement by theodolite.

UNIT - IV

- 4 (a) Define characteristics of contours and uses of contour maps.
(b) Define Remote sensing. What are the applications of remote sensing ?

OR

- 4 (a) Discuss any one method of calculation of volumes ?
(b) Discuss briefly the methods of determination of areas by field measurement.

UNIT - V

- 5 (a) What is manometer ? How are they classified ?
(b) Differentiate between
(i) Absolute and Gauge pressure
(ii) Simple Manometer and differential manometer.

OR

- 5 (a) State Bernoulli's theorem. Mention the assumptions made for the theorem.
(b) What do you mean by stability of a floating body ? Explain the stability of a floating body with reference to its metacentric height ?

