Total No. of Questions :5] *[Total No. of Printed Pages :2*

Roll No ....

CE - 403

B.E. IV Semester

Examination, December 2015

Surveying

Time : Three Hours

 Maximum Marks : 70

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.

ii) All parts of each question are to be attempted at one place.

iii) All questions carry equal marks, out of which part A and B (Max. 50 words) carry 2 marks, part C (Max. 100 words) carry 3 marks, part D (Max. 400 words) carry 7 marks.

iv) Except numericals, Derivation, Design and Drawing etc.

1. a) What do you understand by transit theodolite?
   b) What do you understand by closing error?
   c) Explain about EDM.
   d) Describe in detail the component parts of a theodolite.

   OR

   Briefly describe Bowditch's rule.

2. a) Define tacheometry.
   b) Discuss errors in tacheometry.
   c) Discuss the uses of anallatic lens.
   d) Describe the use of tacheometer for traversing and contouring.

OR

It was required to determine the distance between two points. A and B by tacheometer fitted with anallatic lens (K = 100, C = 0) with the instrument at A and staff at B, the observations made were at vertical angle +9°46′ and staff intercepts of 1.915 m. What is the horizontal distance AB? Later on it was found that the constants of instrument were 100 and 0.5. What would by the percentage error in the horizontal distance computed?

3. a) What is transition curve?
   b) What is compound curve?
   c) Explain reverse curve.
   d) Explain briefly the rankine's method.

   OR

   Describe the various types of curve with a neat sketch.

4. a) What do you mean by base line?
   b) What do you mean by satellite station?
   c) Explain precise traversing.
   d) Explain the various points to be considered in selection and marking of station.

   OR

   Explain triangulation principle and its importance in control survey.

5. a) What do you mean by sounding?
   b) What do you mean by aerial photography?
   c) Write the principles of photographic surveying.
   d) Describe in detail the image processing systems in hydrographic surveying.

   OR

   Explain the importance of remote sensing in civil engineering.

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