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**B. Arch. Part II 3<sup>rd</sup> Semester Final Examination, 2011**  
**Subject: Surveying (CE 302A)**

**Time: 2 Hours**

**Full Marks: 35**

The figure within the bracket indicates full marks.  
Answer **ANY FIVE** Questions.

- 1.(a) What you mean by ranging a line? Describe the indirect ranging method with sketch.  
(b) You are asked to conduct a chain survey field work. Make a list of men and equipments you require for the purpose and give the silent steps of procedure you will follow. (4+3=7)

2. With instrument on X, readings taken on staff are (i) 2.98 m on A, (ii) 1.76 m on B and (iii) 0.54 m on C. Shift dumpy level to Y and the readings are (iv) 3.00 on C and (v) 0.00 on D. If RL of A is 50.00 m above MSL determine the RL of B, C and D. Apply arithmetic checks. (7)

3. The following bearings were taken in traversing with a compass in a place where local attraction was suspected.

Line	Fore Bearing	Back Bearing
PQ	191°30'	13°00'
QR	69°30'	246°30'
RS	32°15'	210°30'
ST	262°45'	80°45'
TP	230°15'	53°00'

At what station(s) do you suspect local attraction? Determine the corrected bearings. (7)

- 4.(a) Define with neat sketch: Base line, Perpendicular offset and Oblique offset.  
(b) Explain how you can locate the foot of a perpendicular on a chain line from an external point with the help of an optical square. (3+4=7)
5. What is closing error? What are the sources of such closing error? Give the sequence of graphical adjustment of closing error. (1+2+4=7)
6. What are the accessories required in a plane table survey? How do you orient the table in plane table survey? Also describe one of the methods briefly. (2+1+4=7)
7. Write short notes on the followings (ANY TWO)  
(i) Two point problem  
(ii) Methods of traversing  
(iii) Reconnaissance survey (7)