

**Practical No: 18**      **Prepare plans and locate details by using Radiation Method.**

**I. Practical Significance:**

At some situations decisions are required to be taken quickly. Accuracy is always not important but decisions are necessary. In such situations plane table survey is important. If area to be surveyed is plan & can be commanded from a single station then radiation method is very significant. In plane table surveying plotting of the plan and field observations can be done simultaneously. As drawing completed in the site itself, Plane table survey is popularly used for small survey works.

**II. Industry/Employer expected outcome(s):**

- Prepare plan by plane table survey with present field situation.

**III. Course Level Learning Outcome (COs):**

- CO 5- Prepare the plan using Plane Table Surveying to locate relevant details.

**IV. Laboratory Learning Outcome (LLO):**

- LLO 18.1 Use plane table survey to prepare plan and locate details by using Radiation Method.

**V. Relevant Affective Domain related Outcome(s):**

- Using Safe behaviors effectively.
- Maintain high standards of hygiene.
- Efficient application of tools, equipment's and machinery.
- Professional and ethical standards.

**VI. Relevant Theoretical Background:**

Principle of plane table survey-Principle of plane tabling is parallelism, means "all the rays drawn through various details should pass through survey station". Information of accessories of plane table with their use. Suitability of method of plane tabling as prevailing fields situation.

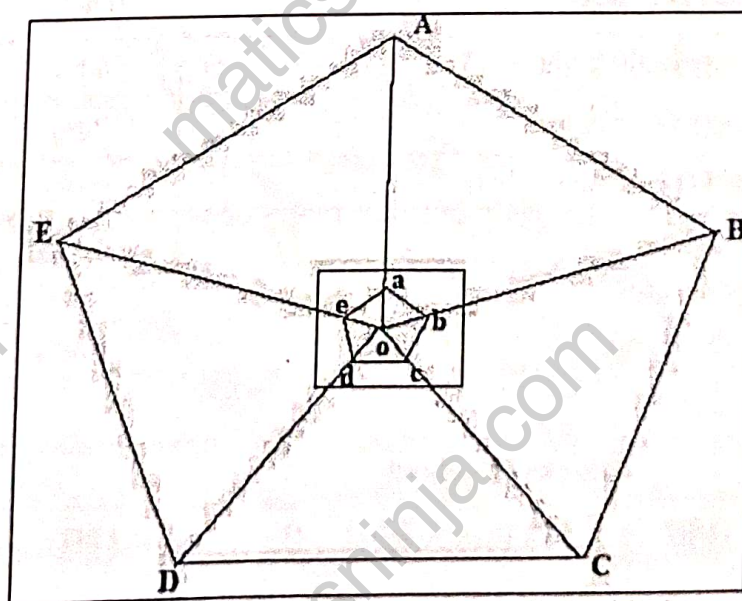


Figure No. 18.1 Radiation method of Plane Table Survey



**XI. Interpretation of results:**

polygon plotted drawing sheet

**XII. Conclusions:**

prepare plans and locate details by using  
Radiation Method.

**XIII. Practical Related Questions:**

1. How two different positions of plane table are linked with one another? State in brief.
2. State the limitations of Radiation method.
3. What are the likely errors in Radiation method and precaution to be taken to eliminate them?

Space for Answer

Q. 1 —————> ?

Ans:- In plane table surveying, different positions of the table are linked through a process called orientation, which ensure each station's position on the map is parallel to its corresponding ground position.

Q. 2 —————> ?

Ans:- Radiation methods, while valuable have limitations including tissue damage, inability to target all cancer cells, per potential complications.

Surveying (312339)

Q. 3)  $\longrightarrow$  ?

Ans:- In radiotherapy errors can rise from patient setup, equipment mal-function or human mistakes. To minimize these errors, strict protocols including multiple checks and verifications steps are crucial.

#### XIV. Assessment Scheme

Sr. No.	Performance Indicators	Weightage	Marks Obtained
A.	Process Related (15 marks)	60%	
1.	Handling of equipment's & Survey Conduction	40%	
2.	Accuracy in length measurement.	20%	
B.	Product Related (10 marks)	40%	
3.	Conclusion of practical	20%	
4.	Practical Question Answer	20%	
C.	Total marks (25 marks)	100%	