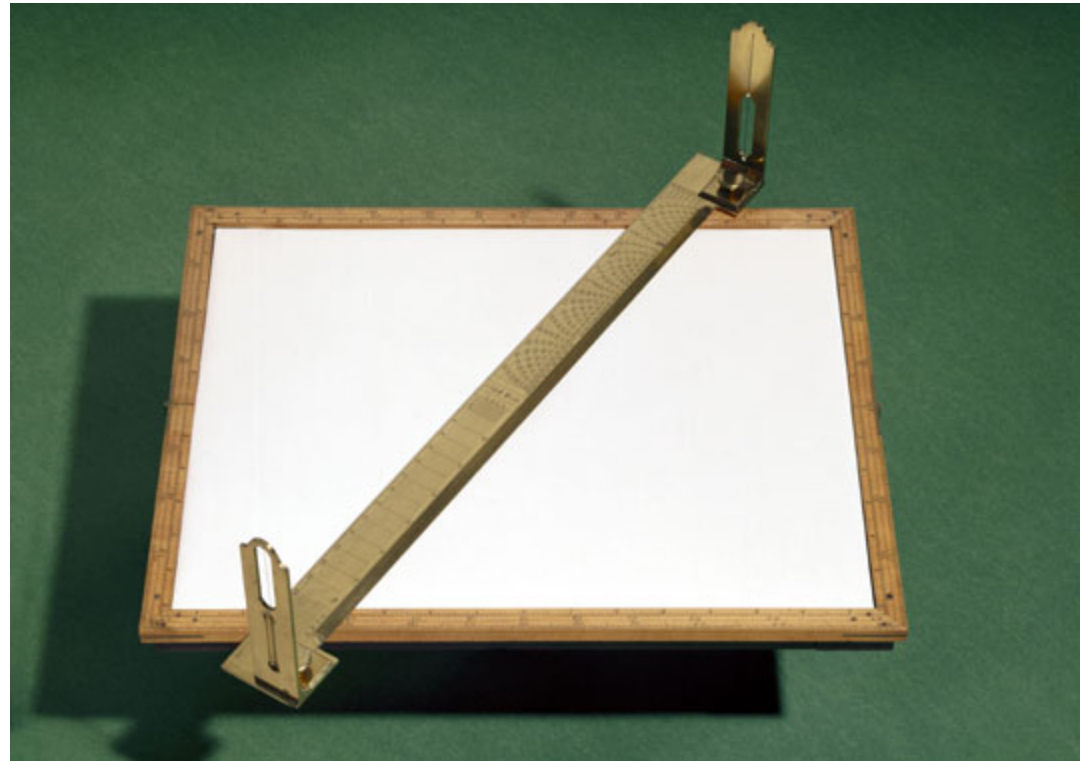


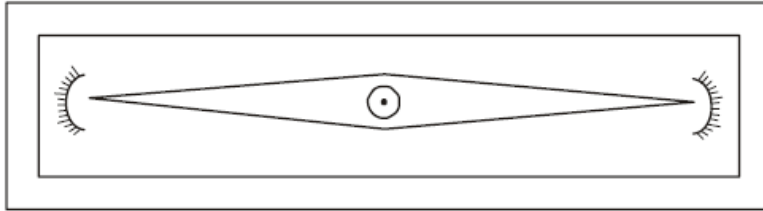
Plane Table Surveying

Prepared by

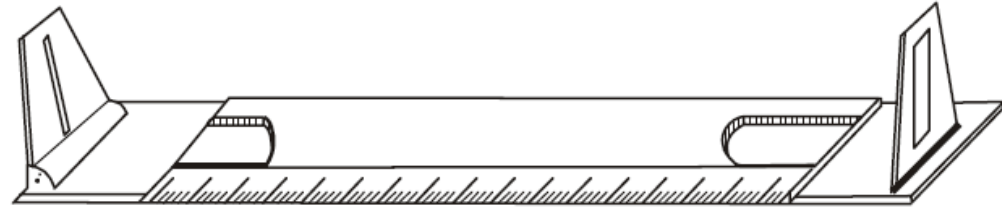
Dr. Md. Jahangir Alam



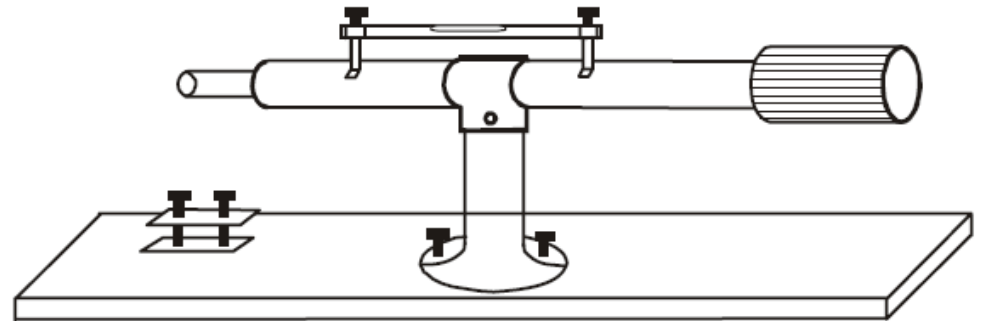
Instruments for Plane Table Survey



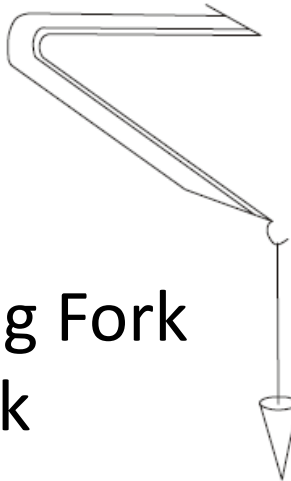
Trough Compass



Alidade



Telescope Alidade



Plumbing Fork
Or U fork

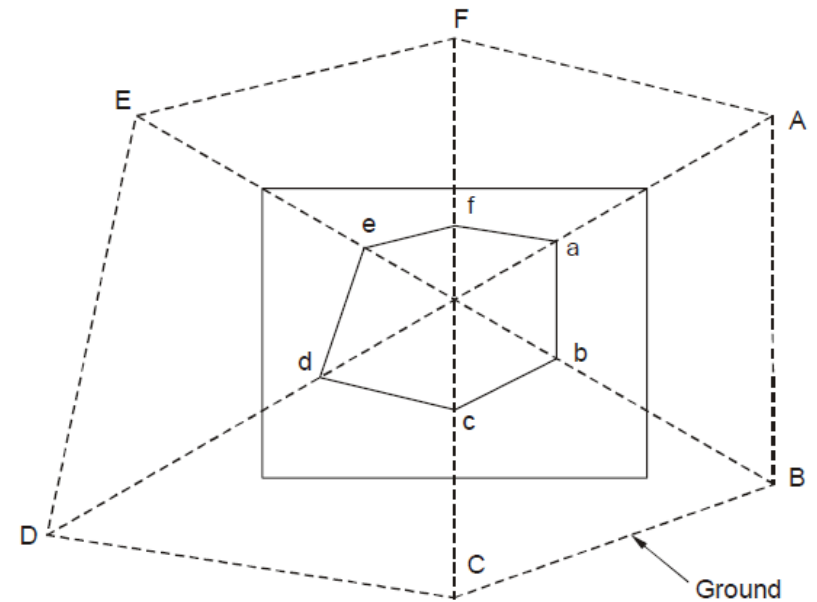
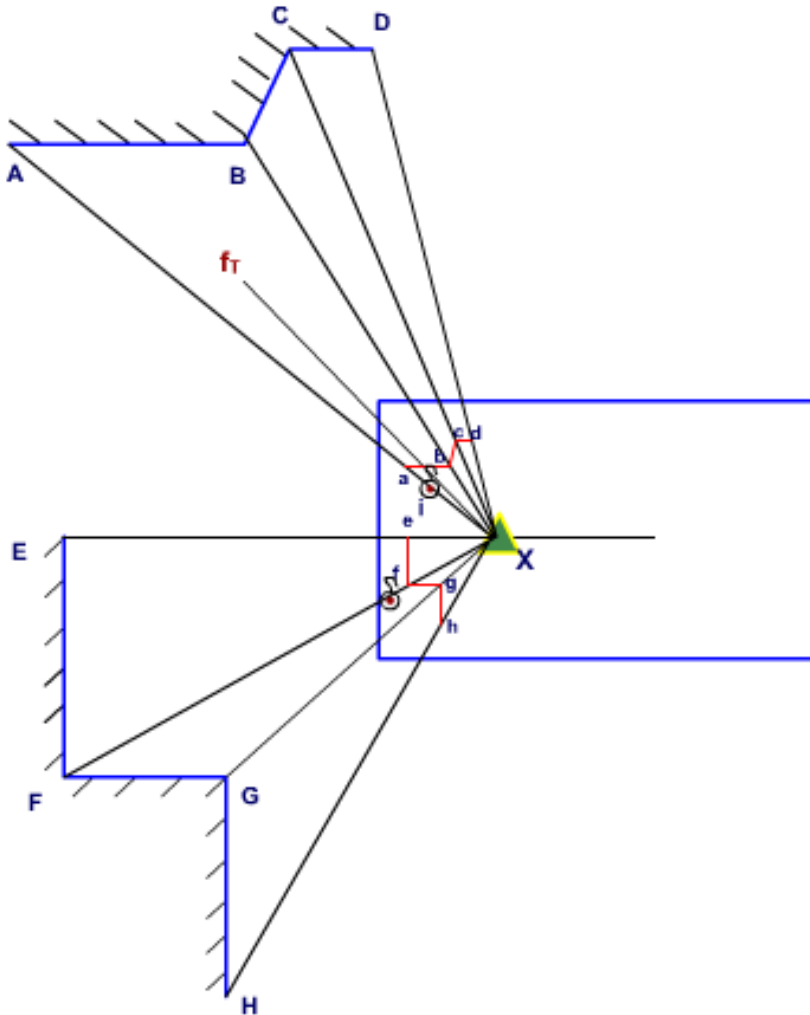


Measuring Tape

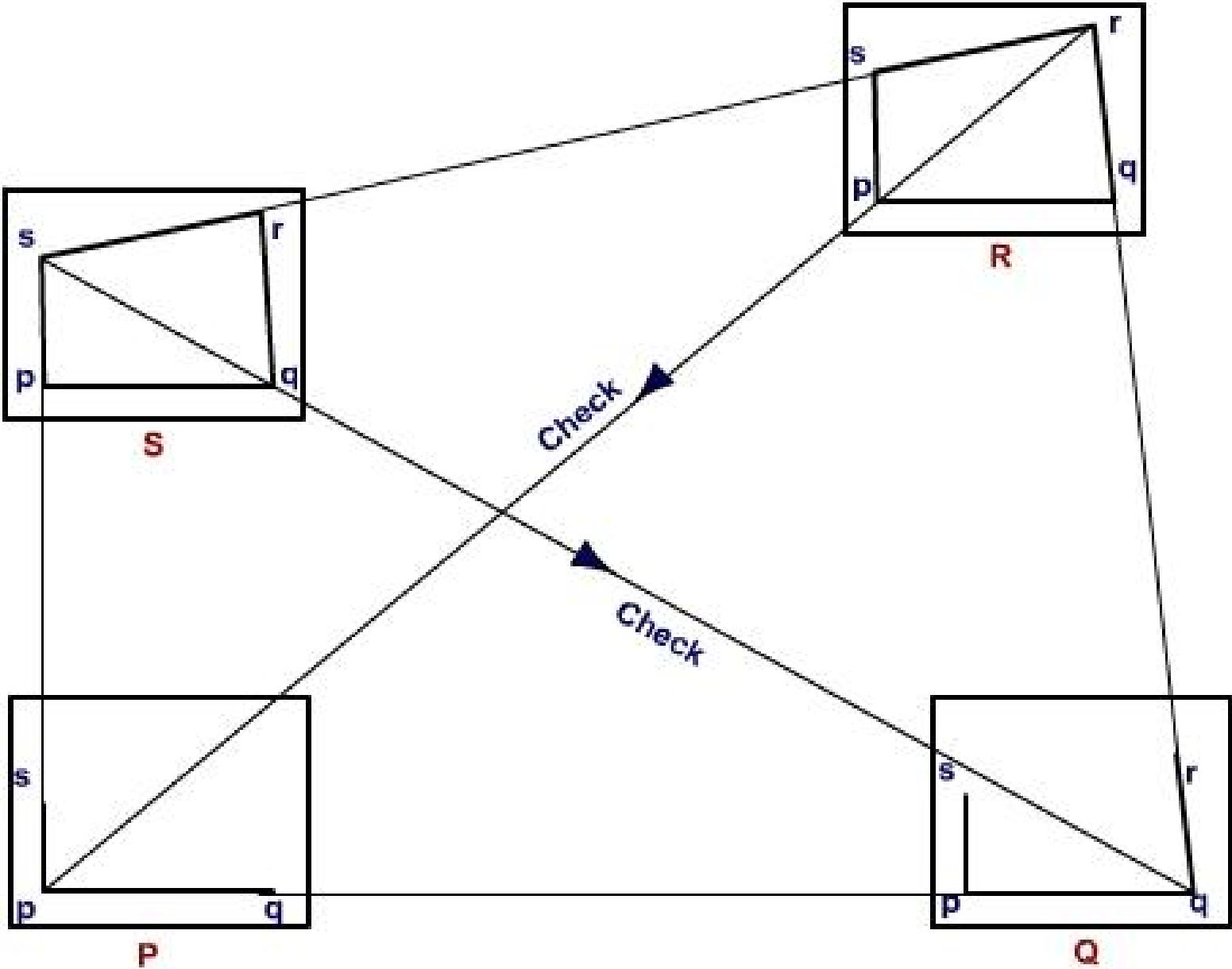
Plane Table Survey Basics

- For quick and approximate surveying, when great precision and accuracy is not needed, plane table surveying techniques is very suitable.
- It is particularly convenient for filling the details between the stations already fixed and surveyed by more precise method of triangulation or theodolite traversing.
- For small area surveys, plane table is recommended.
- The great advantage of this technique is that field work and map plotting is achieved simultaneously by use of graphical surveying.
- The principle used in plane table surveying is that an unknown point of interest can be established by measuring its directions from known points.

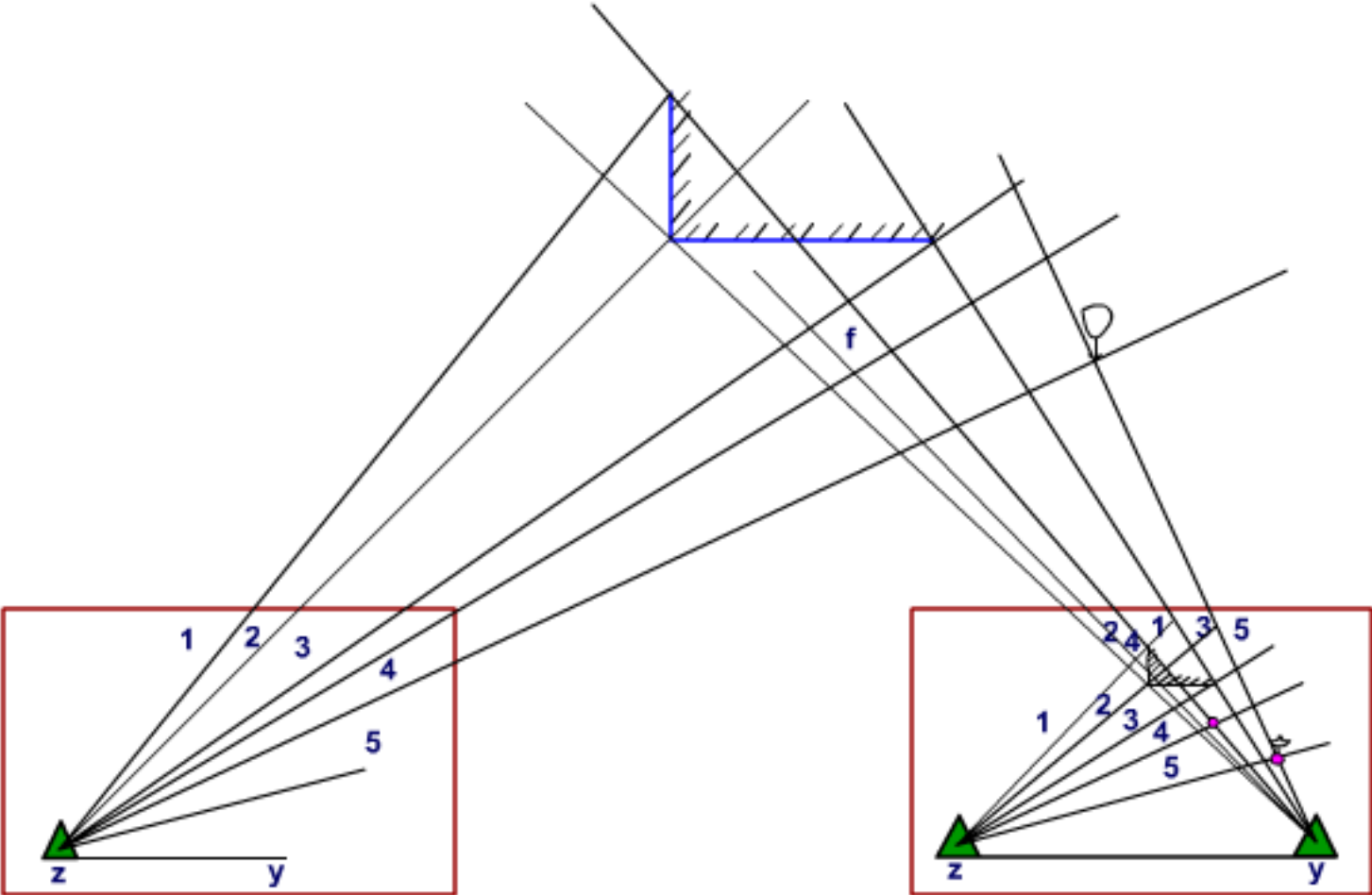
Radiation Method of plane table surveying



Plane table traversing



Intersection method of plane table surveying



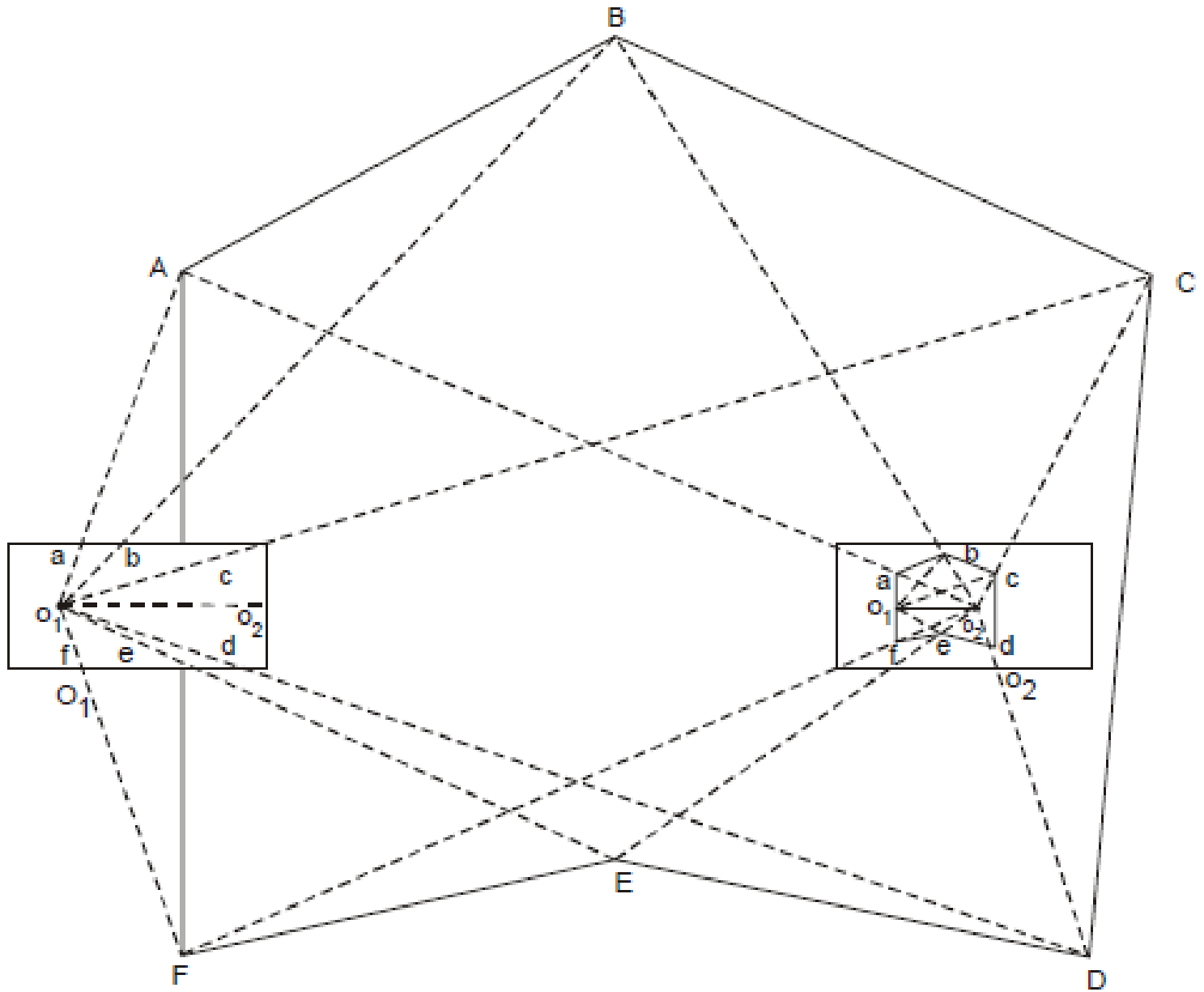
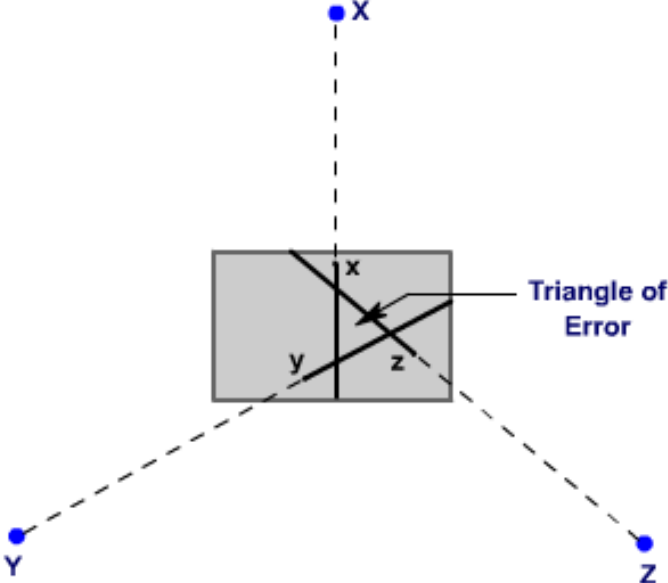
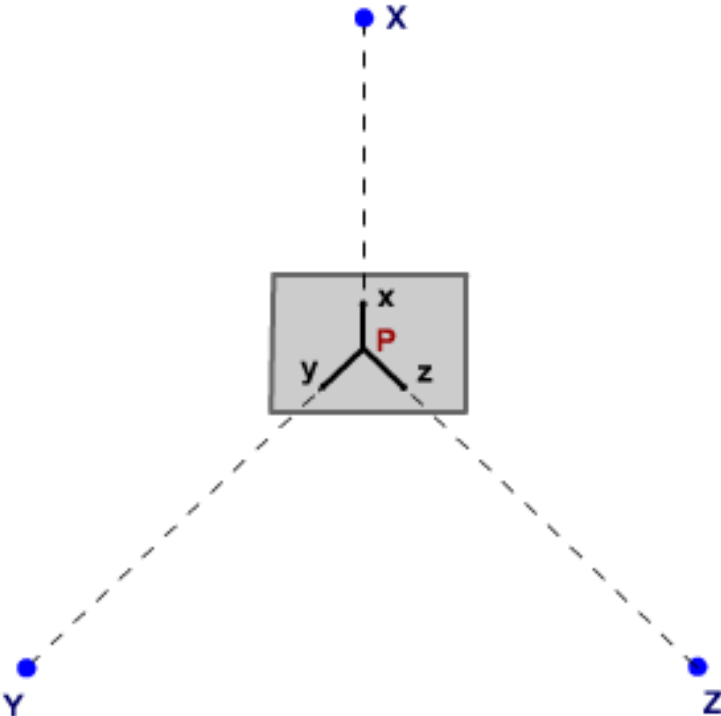
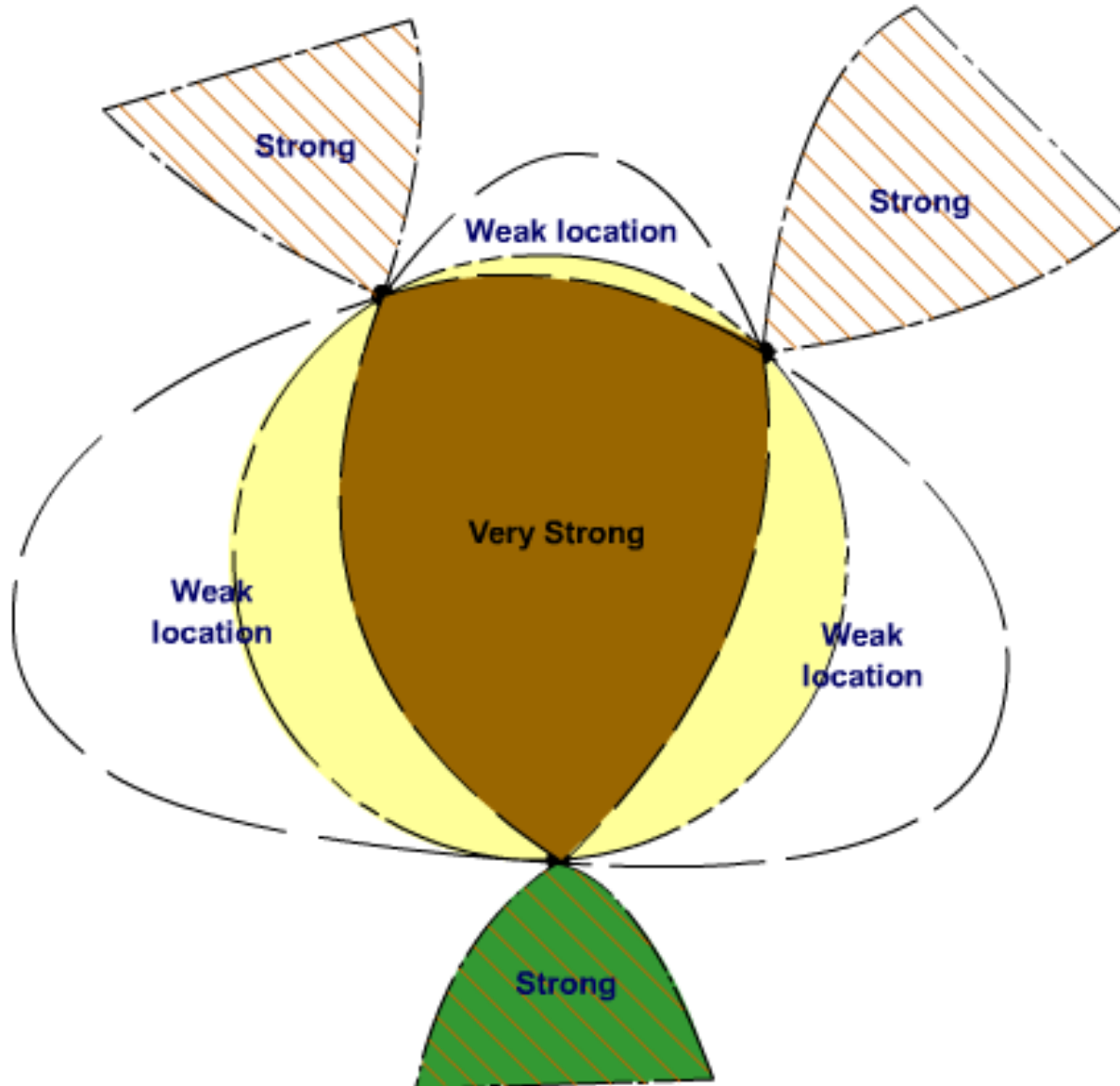


Figure 5.4 : Method of Intersection

Principle of three-point to relocate the plane table station



Qualitative representation of Strength of Fix or Figure



Advantages of Plate Table Survey

- (a) Plane table survey is most suitable for preparing small-scale maps. It is most rapid.
- (b) The field book is not necessary as plotting is done in field concurrently with the field work, and hence the mistakes in booking the field notes are avoided.
- (c) The surveyor can compare the plotted work with the actual features of the area surveyed and, thus, cannot overlook any essential features.
- (d) There is no possibility of omitting the necessary measurements as the map is plotted in the field.
- (e) Errors of measurements and plotting may be readily detected by check lines.
- (f) It is less costly than a theodolite survey.
- (g) No great skill is required to prepare a satisfactory map.

Disadvantages of Plate Table Survey

- (a) The plane table is essentially a tropical instrument. It is not suitable for work in a wet climate.
- (b) It is heavy, cumbersome, and awkward to carry.
- (c) There are several accessories to be carried and, therefore, they are likely to be lost.
- (d) It is not intended for accurate work.
 - (e) If the survey is to be re-plotted to a different scale or quantities are to be computed, it is of great inconvenience in absence of the field notes.