Practical Project 1

Instrument Level checking (2 Peg test)

Candidates Name: _____

TAFE ID Number: _____

Date of Assessment: _____

Team Member's Name:_____

Setup and test the Instrument (Inst. No._____)

	0.0 m	40.0 to 50 m	Difference
Recording from centre spot :	1 _____	2 _____	_____
Recording from 5 or 45 m spot :	1 _____	2 _____	_____

(For each field exercise a level check is required. This check must be carried out each time before you do levelling.)

PROJECT 1

This is a **straight** level run. Datum for Station A is 10.000 meter and for the reverse run take the RL reading from Station 9 as Datum. To clarify: one student does the level run from Station A *(i.e. first RL on the R&F sheet)* to Station 9 *(last reading)* and the other student going back from Station 9 *(i.e. first RL on R&F sheet)* to Station A *(last reading)*
Think about the position of the instrument. You need to shift the level once.

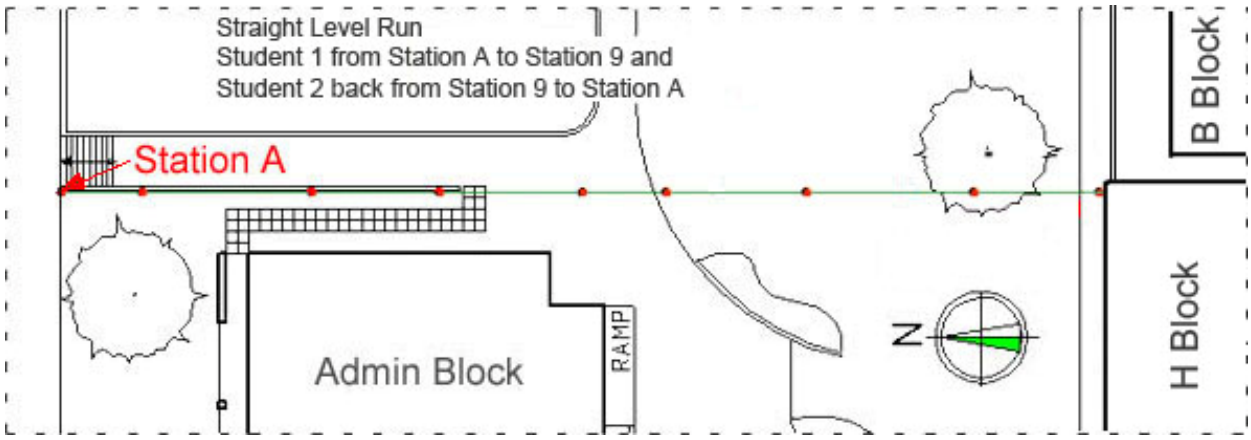
1) Record the levels of each of the BLUE stations 1 to 9 (station 9 is on the Wall). Take Station 1 as datum 10.000 and convert staff readings to Reduced Levels, using the rise and fall method. One student must submit a Rise&Fall sheet for levels from Station A to 9 (the Station at the wall end) and the other student must submit a Rise&Fall sheet for return levels from Station 9 to A. The RL for Station 9 that student 1 has calculated must be used for student 2 as Datum to facilitate his/her calculation of the RL's. Make sure the RL of Station A from the return run is 10.000. A tolerance of ± 0.005 m (± 5 mm) is accectable.

3) Measure the horizontal distance of all stations in baseline dimensions (linear distance of all stations relative to a single base reference (Station A to 9 and Station 9 to A). Slope measurements must be converted to horizontal distances; show all calculations, which must be logical set out and easy to check.

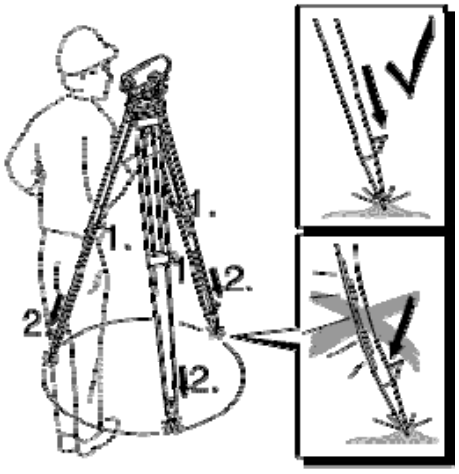
4) Draw profiles from Station A to Station 9 using a horizontal scale of 1:500 and a vertical scale of 1:50.

Your report must cover all of the above four points.

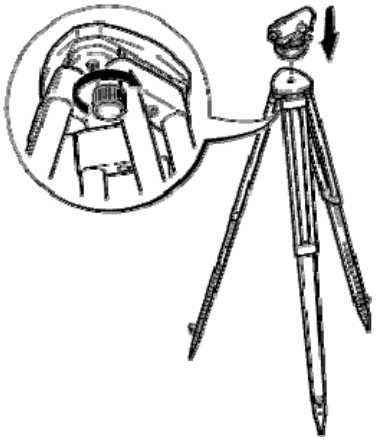
Project 2 Location Plan



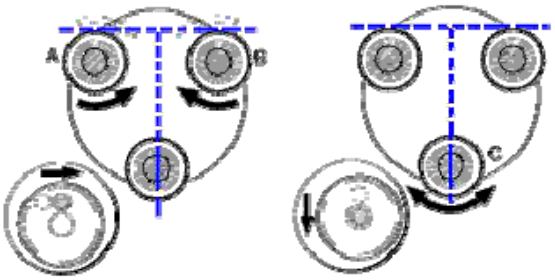
Setup the instrument



1. Loosen screws of tripod legs, pull out to required length and tighten screws.
2. In order to guarantee a firm foothold sufficiently press the tripod legs into the ground. When pressing the legs into the ground note that the force must be applied along the legs.
3. Check all screws and bolts for correct fit.



When setting up the tripod pay attention to a horizontal position of the tripod plate. Minor inclinations of the tripod can be corrected with the footscrews of the tribrach.



1. Place level onto tripod head. Tighten central fixing screw of tripod.
2. Turn footscrews A and B simultaneously in opposite directions until bubble is in the centre (on the imaginary "T").
3. Turn the instrument 90° and then turn the foot screw C until bubble is centred.

Rise & Fall Template

Station	Back-sight	Inter-mediate	Fore-sight	Rise	Fall	Reduced level	Distance	Remarks
A								
B								
C								
D								
E								
F								
G								
H								
J								
K								
L								
M								
N								
p								
Q								
R								
S								
T								
u								
V								
W								
X								
y								
Z								