MID Term Paper.

Surveying-1

Submited By.

Mughis Ullah Khan

Submited to

Registration no 16745

Departmant BTech Civil

"Iqra National University Peshawar"

P(5/1

Q no. 3

(i) Base Line:⇒

The Longest of the Chain line use making a Surey it is Called base line.

(ii) Check Line:⇒

is also Called Proof line is a line joining the apex of a triangle to Somefixed triangle on the opposite Side.

(iii) Tie Line :⇒

Tie Line is a line joining fixed point termed as tie Station an the main Survey line.

(iv) Tie Station:⇒

Any Point selected on the main Survey line where it is necessary to run the auxiliary lines to locate the interior details such as fences, hedges, buildings, etc, when they are at Some distance from the main survey line it is Called tie Station.

P (5/2

(v) Well Conditioned triangle:→
is a triangle in which no angle is less than 30 degrees. one of the way to survey the area is to divide the entire area is smaller triangles and then take the measurement of sides of the triangle.

Q No. 4

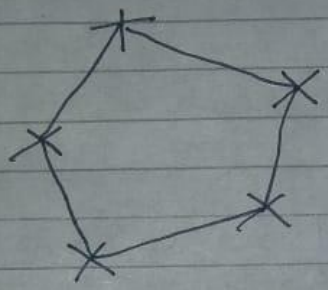
(i) Traversing:→
A traverse Consists of a series of straight lines of known Length related to one another by known angles between the line. the point defining the ends of the traverse line are called the traverse stations. Traverse survey is a mathod of a establishing control Points. their positions being determined by measuring the distances between the traverse stations which serve as control points and the angles subtended at the various stations by their adjacent stations.

P(5/3

Closed traverse and open traverse:⇒

① open traverse:-

② Closed traverse:⇒



There are two types of traverse ~~Surv~~ Surveying. Closed traverse. When the line form a circuit which ends at the starting point, it is know as a closed traverse. open traverse. When the line form a circuit ends elsewhere except starting point, it is said to be an open traverse.

P(5/4

Q No. 2

Ans:-

Sol:⇒

Δ DFC

$$\cos Q = \frac{\text{Base}}{\text{Hypo}}$$

$$\cos 60^\circ = \frac{CD}{DF}$$

$$DF = \frac{CD}{\cos 60^\circ} = \frac{110}{\cos 6^\circ} = 220 \text{ m}$$

Now Δ DGC

$$\tan Q = \frac{\text{Perp}}{\text{Base}}$$

$$\tan 45^\circ = \frac{CF}{CD}$$

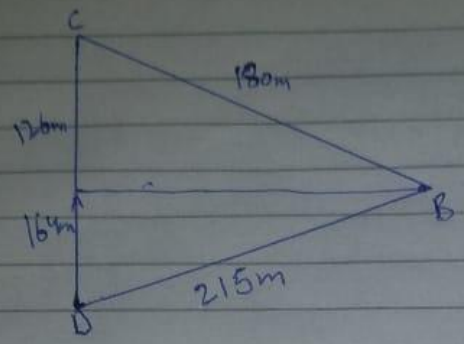
$$CF = 110 \times 1 = 110 \text{ Ans:}$$

$$\cos 45^\circ = \frac{CD}{DG}$$

$$DG = \frac{CD}{\cos 45^\circ}$$

$$= \frac{110}{0.7} = 157 \text{ m Ans:-}$$

Q No. 1 P(5/5



Solution:⇒ BC = 180m, BD = 215m AC = 126m, AD = 164m

Find the length:⇒ AB.

Let Consider (ABC) triangle which is a right angle triagle By applying Pathogrus theorm

$\Rightarrow (BC)^2 = (AB)^2 + (AC)^2$

$\Rightarrow (AB) = (BC)^2 - (AC)^2$

$\Rightarrow (AB)^2 = (180)^2 - (126)^2$

$\Rightarrow (AB)^2 = 32400 - 15876$

$\Rightarrow (AB)^2 = 16524$

$\Rightarrow \sqrt{(AB)^2} = \sqrt{16524}$

$\Rightarrow AB = 128.54$ meter.