

GROUP E

Traverse

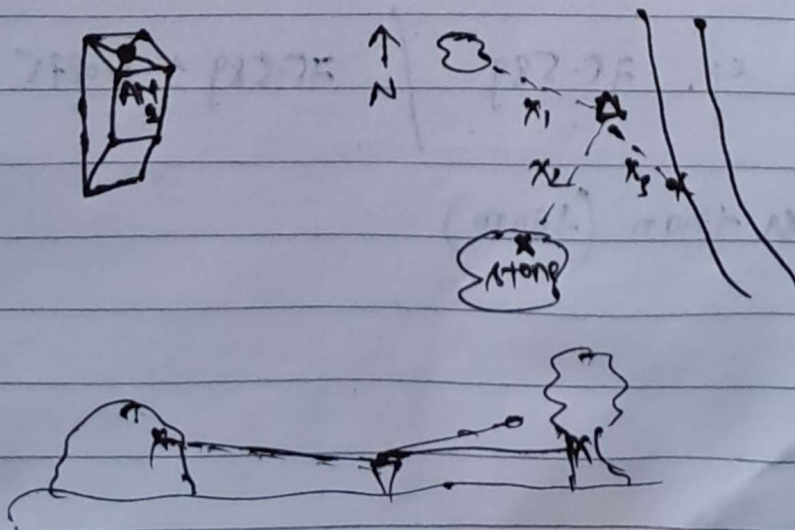
→ Common point

↳ CP_1 & CP_2

→ Reconnaissance

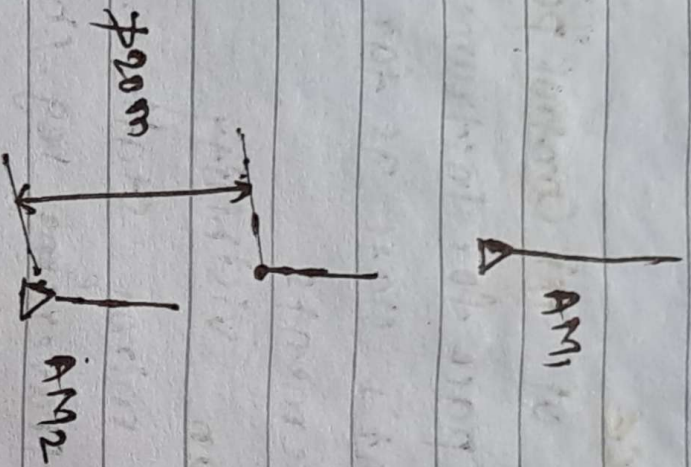
- (i) visibility of ~~all~~ Control points
- (ii) Available space for instrument fixing
- (iii) Avoid pavement's state as far as possible and road pavements
- (iv) Forth station visibility
- (v) Branching for minor stations.
- (vi) leg ratio of traversing leg should not exceed 1:2 for major traverse and 1:3 for minor traverse legs

→ pegging and Referencing



→ linear measurement by tape

→ Ranging



Difference betⁿ F.O.D and B.O.D

$$= 1:2000$$

$$\text{eg. } 75.589 \quad / \quad 75.589 \pm 0.0275$$

less than (100m)

Inst sight to

E_{m2} E_{m3}

E_{m1}

	B _s			B _s		
	T	M	B	T	M	B
	00015	0.725	0.683	2.573	2.4879	2.385
①	0.479	0.68	0.725	2.515 2.42	2.487	2.425
②	220	0.624	0.5765	2.744	2.698	2.6521
③	200	0.76	0.713			
④	190	0.7545	0.7075			
				2.65	2.605	2.56

IS	FS	BS	Inter	Red
T	T	B		sighted to BM
M	M	M		sighted to EMg
1.048	1.657	1.529		
1.125	1.593	1.529		

3129086.11

972011.421

Z

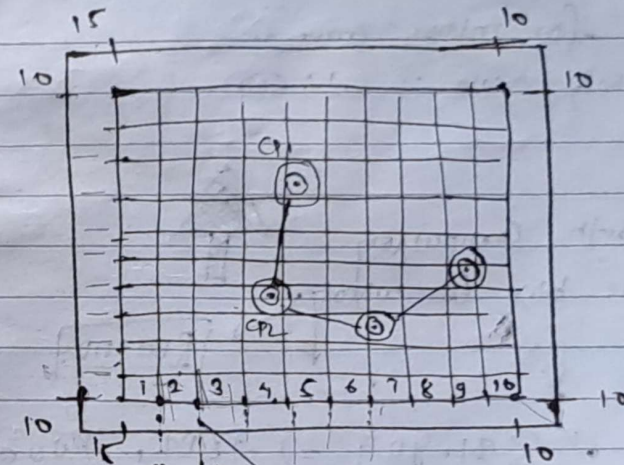
1125

GP1 (Location)

N = 3128936.810

E = 972012.788

Z = 9



50m

Major traverse

Drawing scale = 1:1000

Maxm

minimum

latitude 600.246

100.354

(eg)

departure 700.822

300.578

diff

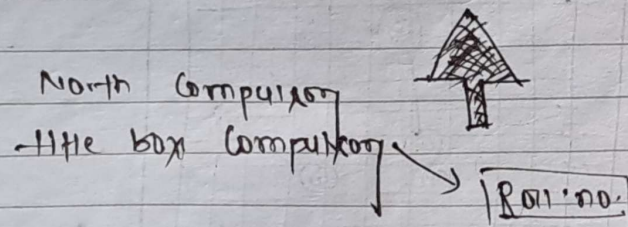
(N) Latitude =

diff

(E) departure =

Easy Total grid 500 m. $\Rightarrow 100$ needed
 needed 400 $\Rightarrow 8$

for minor traverse
 Dwg scale $\Rightarrow 1:500$



881.909 $\Rightarrow$ TBM, Road

881.255 $\Rightarrow$ BM₁

-56.3002

54.8659

max^m
 latitude 76.479495

min^m
 $-78.87399 = 155.353485$

dep 81.3515

$-89.0711 = 170.4226$

down 269.823

max^m Latitude = 8129137.493

Minimum " = 8128867.67

Difference = 269.823

Max^m Departure = 972222.5282

Min^m " = 971966.2113

Difference = 256.3169

A = (3128850, 971950)

A (3128850, 971950)

831.909. TBM

831.364. EMg

EMg 500.000

831.693. (1)

832.003. EM8

EM2

831.525. (2)

831.367. EM7

EM6

830.522. (3)

EM5 828.289

829.827. EM6

EM5

829.067. (4)

828.422. EM5

EM4

827.344. (5)

826.418. EM4

EM3

825.866. (6)

CP1

825.526. EM3

EM2

824.892. (7)

824.191. EM2

EM1

824.219. (8)

825.3. (CP2)

EM1/CP2

826.124. (9)

827.306. CP1. CP

Minoy

CP1 827.306

(a) 828.349

EM1 830.354

(b) 830.291

EM2 830.271

EM3 830.075

(c) 829.763

EM4 829.4835

EM5 828.2985

EM5 828.4305

EM, 8987.82, 2044.596

(EM5 EM5 20.0025)

EM2

EM3

EM4

EM5

1646 16387

7.815

22.528

CP₁

26.47

13.895

CP₂

36.

EM₁

47.314

EM₂

8.243

EM₃

37.49

36.11

11.421

7.23

16.21

minor

minimum latitude = 3128936.81
 maximum latitude = 3129137.493
 Diff = 200.683
 minimum departure = 971966.2113
 maximum departure = 972207.8153
 Diff = 241.604

Origin = (3128925, 971950)

EM₂
 N: 3128916.457
 E: 972216.9873
 Z: 825.526

EM₃
 N: 3128986.871
 E: 972222.5282
 Z: 826.418

EM₄
 N: 3129063.35
 E: 972207.8153
 Z: 828.420

EM₅
 N: 3129135.241
 E: 972058.2413
 Z: 829.827

EM₆
 N: 3129137.493
 E: 972058.2428
 Z: 831.367

EM₇
 N: 3129086.108
 E: 972011.4214
 Z: 832.003

Detailing by total station

SN = 1

N =

E =

Z =

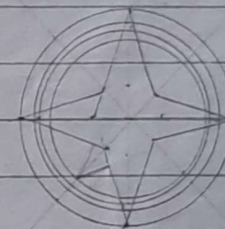
CODE - CP

EM₅

N: 3129135.241

E: 972147.3139

Z: 829.827



EM₂

N: 3129009.934

E: 971966.7813

Z: 831.364

CP₁

N: 3128936.81

E: 972012.788

Z: 827.306

CP₂

N: 3128880.51

E: 972067.6558

Z: 825.3

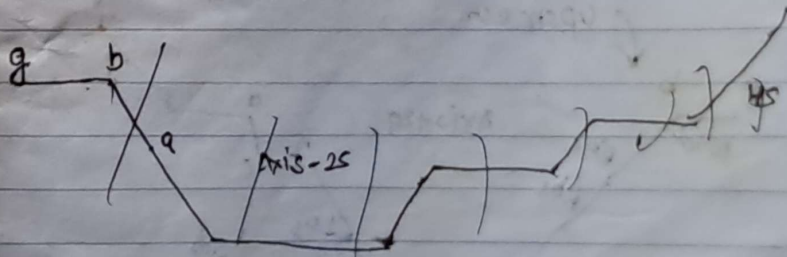
EM₁

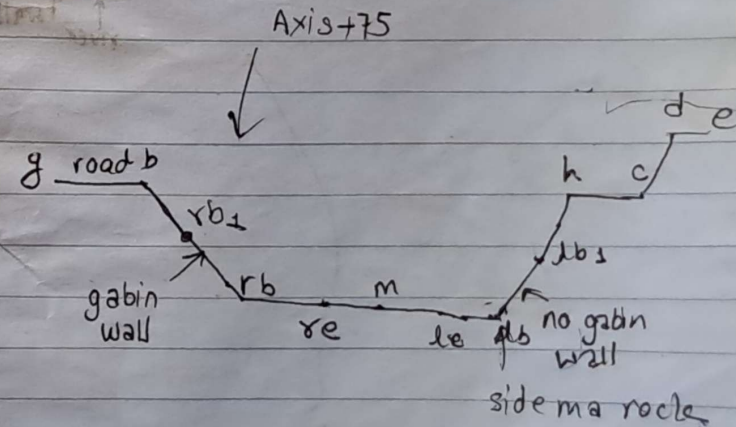
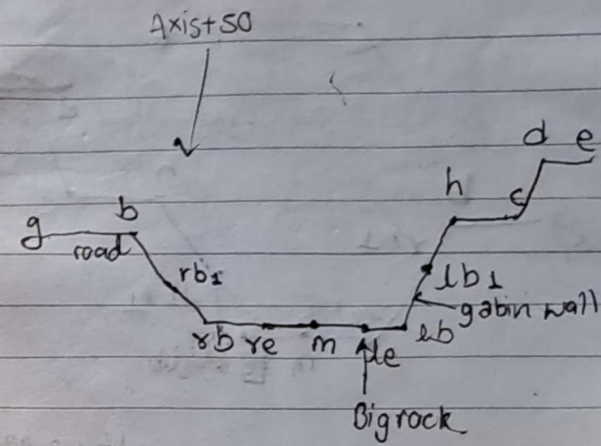
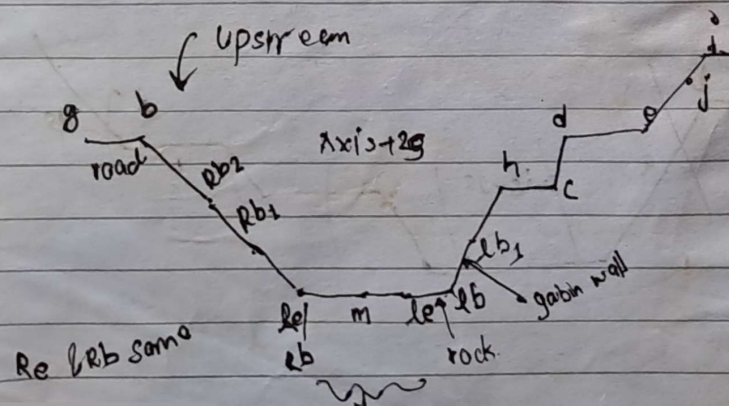
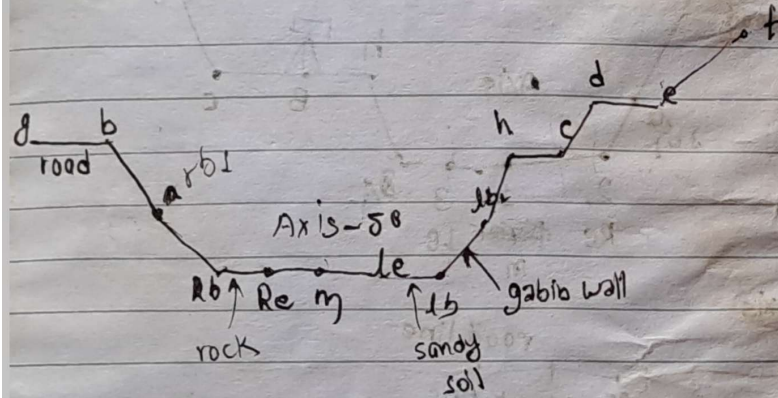
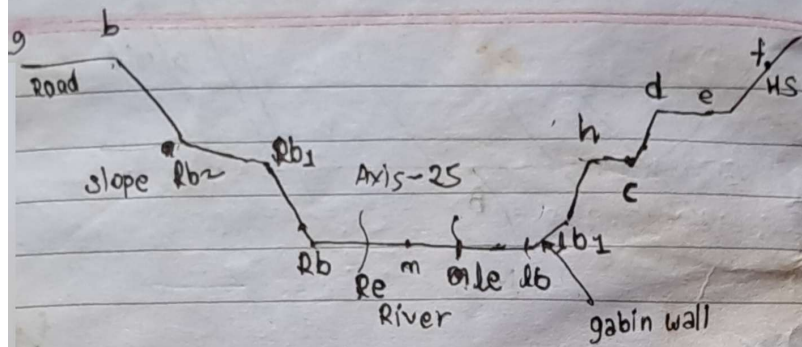
N: 3128867.67

E: 972149.0073

Z: 824.191

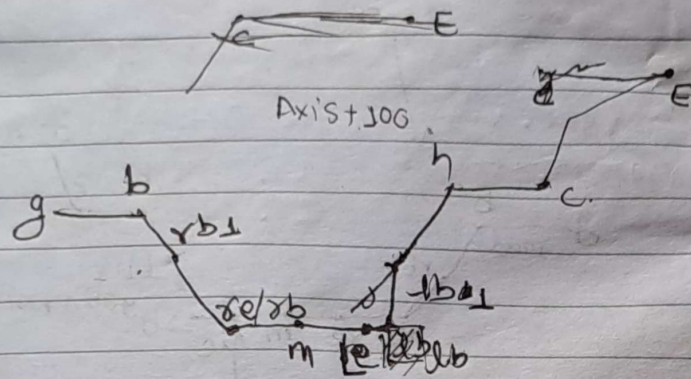
start of meandering





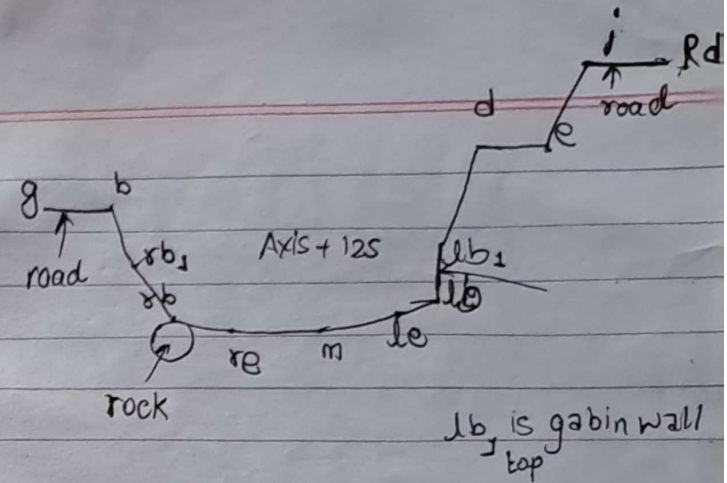
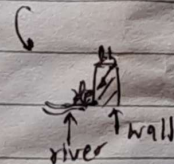
1.510 1.762 2.1014

100m upstream

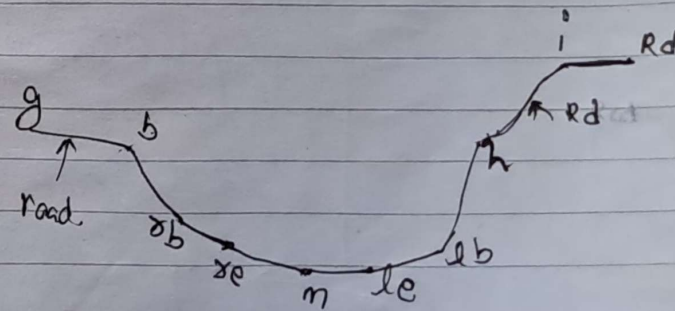


re and rb same.

lb ma gabin wall
re and lb same

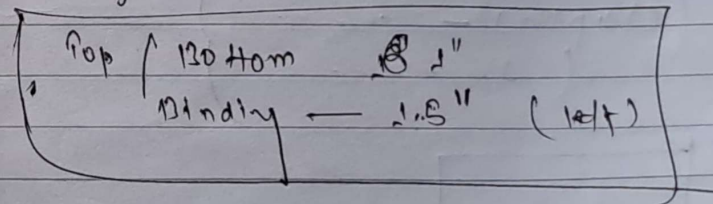


Axis + 150 → ab bridge axis.



- Abstract ⇒ 200-250 words
(Intro - obj - theory - ^{result} - Conclusion)
- Table of Content
- weekly schedule
- short form / full form
- Chapter 1 - introduction
(Survey, Survey comp.)

margin → Custom →



font → Times New Roman
font size → 12

first heading →
(Chap 1, 2.)

Times new Roman.

font - 14 / bold

heading 2

13 - (B C M D)

Times new roman

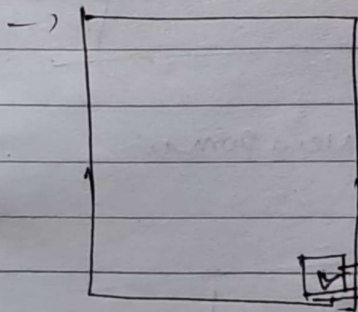
spacing

1.5 / 1.15

→ Acc → ~~Star~~ before ^{Chapter 1} page

(i, ii = roman)

→ (Chapter 1 - ...)
(1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12)



→ page No.