



ROLL NO.

PRESIDENCY UNIVERSITY, BENGALURU
SCHOOL OF ENGINEERING

Max Marks: 80

Max Time: 120 Mins

Weightage: 40 %

END TERM FINAL EXAMINATION

I Semester AY 2017-18

Course: **CIV 202 - SURVEYING**

20 DECEM 2017

Instructions:

- i. Write legibly
- ii. Scientific and non programmable calculators are permitted

Part A

[4 Q x 5 M= 20 Marks]

1. What are the advantages and disadvantages of plane table surveying?
2. Explain basic principle of Tacheometry.
3. What are the different methods of plane tabling? Explain radiation method with a neat sketch.
4. List the various methods of setting out simple curve.

Part B

[2 Q x 15 M= 30 Marks]

5. What is orientation of plane table? Discuss the methods of orientation of Plane table.
6. Calculate the ordinates at 10m intervals for setting out a circular curve of radius 400m for a deflection angle of 60° . Use the method of offsets from long chord.

Part C

[2 Q x 15 M= 30 Marks]

7. A railway embankment 400m long is 12m wide at the formation level and the side slope 2 to 1. The ground level at every 100m along the center are as under.

Distance	0	100	200	300	400
R.L	204.8	206.2	207.5	207.2	208.3

The formation level at zero chainage is 207.0 m and the embankment has a rising gradient of 1 in 100. The ground is level across the center line. Calculate the volume of earthwork.

8. The following observations were made to the target on a hill top to certain elevation at hill top. The height of the target F was 5m

Inst. Stn	Reading on B.M(M)	Vertical angle on target at hill top	RL Of bench mark(M)
O ₁	2.550	18° 6'	345.580
O ₂	1.670	28° 42'	

The instrument station were 100m apart and were in line with F. Calculate the RL of foot of the target.



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Max Marks: 40

Max Time: 60 Mins

Weightage: 20 %

TEST 2

I Semester 2017-2018

Course: **CIV 202 - Surveying**

26 OCT 2017

Instructions:

- i. Write legibly
 - ii. Scientific and non programmable calculators are permitted
 - iii. Assume any suitable data if missing.
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Part A

1. Define the following terms.

a) Contour b) Contour interval

[3M]

2. List the uses of contour map.

[3M]

Part B

3. Explain the following terms.

a) Bench mark (b) Fore Sight (c) Back Sight (d) Height of instrument (e) Line of collimation.

[10M]

4. Explain the temporary adjustment of a Theodolite.

[6M]

Part C

5. List the types of leveling and explain any two types of leveling.

[8M]

6. The following readings were observed successively with a leveling instrument. The instrument was shifted after 5th and 11th readings.

0.585, 1.010, 1.735, 3.295, 3.755, 0.350, 1.300, 1.795, 2.575, 3.375, 3.895, 1.735, 0.635, 1.605. The first reading was taken with the staff held upon a bench mark of elevation 136.440m. Determine the RL of various points using rise and fall method.

[10M]



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Max Marks: 40

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TEST 1

I Semester 2017-2018

Course: **CIV 202 - Surveying**

18 SEPT 2017

Instructions:

- i. Write legibly
 - ii. Scientific and non programmable calculators are permitted
 - iii. Assume any suitable data if missing.
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Part A

1. List the classification of Surveying. [10M]
2. Explain the basic principles of surveying. [6 M]

Part B

3. Differentiate between Whole Circle bearing and Quadrantal bearing. [3M]
4. A traverse ABCDA is made in the form of a square taking in clockwise order. If the bearing of AB is $120^{\circ} 30'$, find the bearing of the other side. [6 M]

Part C

5. A river is flowing from west to east. For determining the width of a river, two points A and B are selected on the southern bank such that distance $AB = 100\text{m}$. Point A is west ward. The bearings at a tree 'C' on the northern bank are observed to be 40° and 340° respectively from A and B. Calculate the width of the river. [10M]
6. Explain any two methods for determining the width of a river. [5M]