

31043 – Surveying II

UNIT 1

PART – A&B (2&3 MARK)

1. What do you mean by theodolite surveying?
2. What are the types of theodolite?
3. Define terms transit and non transit?
4. What do you understand the term telescope is normal?
5. What do you mean by inverted theodolite?
6. Define repetition and reiteration methods of horizontal angle taking?
7. Explain the function of optical plummet.
8. What is latitude and departure?
9. Define consecutive co-ordinate and independent co-ordinate.
10. Define deflection angle.
11. State the omitted measurements.
12. Give the uses of tubular compass.
13. What do you mean by traverse?
14. What are the types of traverse ?
15. Mention the uses of traverse.
16. Explain the any one methods of traverse.

PART – C (10 MARK)

1. Draw the cross section of theodolite and mention the all parts of theodolite.
2. Briefly explain the parts and functions of theodolite.
3. Briefly explain the methods of theodolite traversing.
4. Briefly explain the types of theodolite.
5. Calculate the area for following data

Line	Length	bearing
AB	70	15
BC	80	73
CD	90	45
DE	88	50
EA	78	55

6. Calculate the missing data for following readings:

S.NO	Latitude	departure
1	-650	-650
2	-750	488
3	880	590
4	440	675
5	?	?

31043 – Surveying II

UNIT 2

PART – A&B (2&3 MARKS)

1. Define tachometry
2. What do you mean by tachometer?
3. What are the difference b/w tachometers and theodolite?
4. What are the systems of tachometry?
5. Principles of tachometry?
6. Give the distance and elevation formulas?
7. Explain the types of traversing?
8. What do you understand the term parallax?
9. Explain the fundamental lines in tachometer?
10. Draw the stadia diaphragm
11. Give the elevation and distance formula for staff is normal and line of sight is inclined?
12. What is analytic lens?
13. Define additive and multiplying constant?

PART – C (10 MARK)

1. Briefly explain the system of tachometry?
2. Derive the stadia constants.
3. Derive the expression on staff is normal and line of sight is inclined.
4. Derive the distance and elevation formula for staff is inclined line of sight is normal?
5. Derive the expression under the condition staff is normal and line of sight is inclined.
6. Find out the stadia constants for following data.

Observation	Distance	Vertical angle	Staff intercept
1	40	$2^{\circ}36'$	0.400
2	80	$1^{\circ}12'$	0.795
3	120	$0^{\circ}30'$	1.200

If additional constant was 0 and multiplying constant was 100

7. The following readings were taken by a tachometer with the staff held vertical. The tachometer is fitted anallatic lens and multiplying constant is 100. Find out the horizontal distance from A to B and RL of B

S.No	Staff station	Vertical angle	Staff reading	Remarks
	B.M	$3^{\circ}36'$	1.100, 1.150, 2.60	R.L of B.M =100
A	B	$1^{\circ}12'$	0.982, 1.155, 1.450	

31043 – Surveying II

UNIT 3

PART – A&B (2&3 MARKS)

1. Define leveling
2. Define trigonometrical leveling?
3. What do you mean by remote sensing?
4. What is active remote sensing?
5. Define passive remote sensing.
6. What are the instruments used for sounding?
7. What is horizontal control?
8. What do you mean by hydro graph surveying?
9. Define Ariel photogrametry?
10. Define terrestrial photogrametry?
11. What do you mean by photogrammetric survey?
12. Write the short notes on sound pole and sounding boat.

PART – C (10 MARKS)

1. Problems on single plane method and double plane method?
2. Briefly explain the remote sensing.
3. Briefly explain the hydrograph surveying.
4. Briefly explain the sounding.
5. Briefly explain the photogrametry.

31043 – Surveying II

UNIT 4

PART – A&B (2&3 MARKS)

1. Define curve.
2. What are the classifications of horizontal curve?
3. What are the types of vertical curve?
4. Define long chord.
5. Define apex distance?
6. What do you mean by tangent length?
7. Define deflection angle?
8. Define include angle?
9. What is the relation between deflection angle to include angle?
10. How to find out the chord length.
11. What are the functions of curve?
12. What is transition curve?

PART – C (10 MARKS)

1. A simple curve of radius 50m and angle of intersection 120° . the straight AB was meet at the distance 4000m. assume 20m chain will be used. Design the all elements of curve and design the curve by all methods.
2. Briefly explain the field procedure for rankine methods of curve setting.
3. Explain the all types of curve.

31043 – Surveying II

UNIT 5

PART – A&B (2&3 MARKS)

1. What is total station?
2. What are the characteristics of total station?
3. What are the features of total station?
4. Expand the term GIS.
5. How to take the horizontal angle by total station?
6. How to give the input to the total station?
7. What are the component of GIS?
8. What are the applications of GIS?
9. What are the applications of total station?

PART – C (10 MARKS)

1. Briefly explain the total station features.
2. Briefly explain the field procedure for total station traversing.
3. Briefly explain the applications of GIS.
4. Compare the GIS with other drawing software.
5. Explain the components of GIS.
6. Explain the cadastral survey.