

B.TECH IN CIVIL ENGINEERING (BTCLEVI)**Term-End Examination****June, 2012****BICE-004 : ADVANCE SURVEYING***Time : 3 Hours**Maximum Marks : 70**Note : Attempt any seven questions. Use of scientific calculator is permitted.*

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1. Explain Tangential method for the following two cases : 10
 - (a) When both angles are angles of elevation
 - (b) Both angles are angles of depression

 2. (a) What do you understand by shore line survey ? 5
 (b) Explain three - point problem. 5

 3. A tacheometer is set up at an intermediate Pt. on a traverse course PQ and following observations are made on a vertically held staff : 10

Staff station	Vertical angle	Staff Intercept	Axial hair Readings
P	$+8^{\circ} 36'$	2.350	2.105
Q	$+6^{\circ} 6'$	2.055	1.895

The instrument is fitted with an anallactic lens and the constant is 100. Compute the length of PQ and reduced level of Q, that of P being 321.50m.

4. (a) What are vertices curves ? Explain with is types. 5
(b) Describe length of curve. 5
 5. What is a transition curve ? Why it is used ? 10
Define shift of a curve.
 6. Differentiate among primary secondary and tertiary triangulation. What is well condition triangle and strength of figure ? 10
 7. Explain about the EDM methods and its principle. 10
 8. What are the various co-ordinate systems ? 10
Explain any two with diagram.
 9. What do you understand by flight planning for aerial photography ? 10
 10. Write short notes on *any two* of the following. 10
 - (a) Simple Circular curves.
 - (b) Data Acquisition Techniques.
 - (c) Signals and Towers.
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