

00825

B.TECH. IN CIVIL ENGINEERING (BTCLEVI)

Term-End Examination

June, 2012

BICE-002 : SURVEYING

Time : 3 hours

Maximum Marks : 70

Note : Attempt any seven questions.

1. (a) What do you understand by the term surveying ? Write the classification of survey according to its purpose. 5
(b) Explain the basic concepts of plane Table Surveying. Also mention various possible errors while conducting it. 5
2. (a) Describe the principles of surveying. 5
(b) The length of a line measured with a 20 metre chain was found to be 250 metres. Calculate the true length of the line if the chain was 15 cm too long. 5
3. What do you mean by compass survey ? Explain the terms Fore Bearing and Back Bearing. Also differentiate between the prismatic compass and surveyors compass with neat sketches. 10

4. What do you understand by the term bearing ? 10
Determine the values of included angles in the closed compass traverse ABCDA conducted in clockwise direction, given the following fore bearings of their respective lines :

Line	F.B
AB	40°
BC	70°
CD	210°
DA	280°

Apply the check.

5. (a) Write the various steps involved in levelling using the height of instrument method. 5
(b) What is meant by local attraction ? How will you eliminate it if it is effected while conducting ? 5
6. Describe the method of Resection. Explain it with three - point problem. 10
7. Write the temporary and permanent adjustments for theodolite. How will you measure a horizontal vertical angles by repetition method ? Explain. 10

8. Define the terms : 10
- (a) Vertical Axis
 - (b) Horizontal Axis
 - (c) Line of collimation
 - (d) Centering
 - (e) Face left and face right observation.
9. Write a short note on *any two* of the following : 10
- (a) Rise and Fall Method
 - (b) Graphical Method for balancing traverse
 - (c) Curvature and Refraction
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