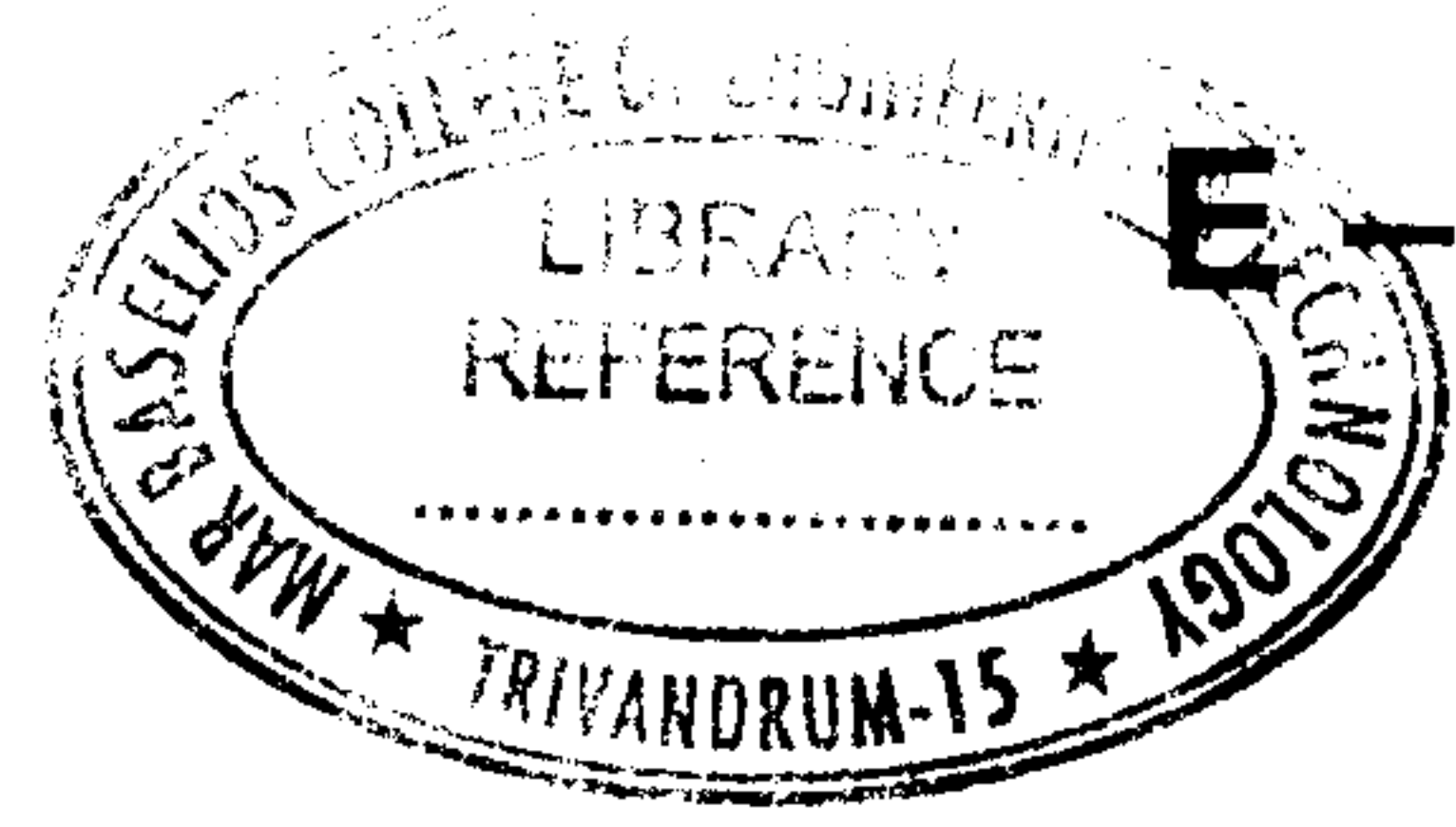




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E-4173

Reg. No. : .....

Name : .....

**Fourth Semester B.Tech. Degree Examination, August 2018  
(2013 Scheme)  
13.405 SURVEYING II (C)**

Time : 3 Hours

Max. Marks : 100

**Instruction :** Answer *all* questions from Part A and *one full* question from *each* Module in Part B.

**PART – A**

- I. a) What is meant by 'reduction to centre' and 'strength of figure' ?
- b) Define transition curve and list out the functions of transition curves.
- c) Write down any three laws of weights.
- d) What are the advantages of using Total station ?
- e) Define G.I.S. and write its applications. (5×4=20 Marks)

**PART – B**

**Module – I**

- II. a) Explain Signals and Towers. (8)
- b) The elevations of two triangulation stations A and B, 120 km apart are 210 m and 1050 m, above MSL. The elevations of two peaks C and D on the profile between them are respectively 320 m and 557 m, the distances being AC = 50 km, AD = 80 km. Ascertain if A and B are inter visible and if necessary, find the minimum height of a scaffolding at B, assuming A as ground station. (12)

OR

- III. a) How the errors are classified ? What are the precautions and corrections ? (8)

P.T.O.



b) The following are mean values observed in the measurements of three angles A, B and C at one station.

$$A = 76^{\circ}42' 46.2'' \text{ weight } 4$$

$$A+B = 134^{\circ}36' 32.6'' \text{ weight } 3$$

$$B+C = 185^{\circ}35' 24.8'' \text{ weight } 2$$

$$A+B+C = 262^{\circ}18' 10.4'' \text{ weight } 1$$

Calculate the most probable value of each angle.

12

### Module – II

IV. a) Explain the methods of traversing.

8

b) What is meant by closing error ? How will you determine closing error of a traverse ?

12

OR

V. a) What are the linear methods used for setting out simple circular curves ? Explain any two methods.

8

b) If the radius of a circular curve is 400 m and angle of intersection is  $120^{\circ}$ . Find the various elements of a simple curve, taking the chainage of the point of intersection as 1220.50 m.

12

### Module – III

VI. a) Write down the steps involved in GPS data processing.

8

b) Explain the types of EDM instruments.

12

OR

VII. a) Define GPS and write down the applications of GPS.

8

b) Describe the function and operation of total station.

12

### Module – IV

VIII. a) Write a detail note on application of remote sensing.

8

b) Describe with sketches the field work of a survey with phototheodolite. Explain how you would plot the survey.

12

OR

IX. a) What are the components of ideal remote sensing system ?

8

b) What are the objectives of GIS ? Briefly explain the components of GIS.

12

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