

Code No: RT21015

R13**SET - 1****II B. Tech I Semester Supplementary Examinations, May/June - 2017****SURVEYING**

(Civil Engineering)

Time: 3 hours

Max. Marks: 70

- Note: 1. Question Paper consists of two parts (**Part-A** and **Part-B**)
2. Answer **ALL** the question in **Part-A**
3. Answer any **THREE** Questions from **Part-B**
- ~~~~~

PART -A

1. a) What are the objects of Surveying?
b) Define compass survey
c) List the leveling instruments
d) What is trigonometric leveling
e) What are the elements of a simple circular curve?
f) How do you compute areas along irregular boundaries?

PART -B

2. a) Classify and explain in detail about the method of surveying based upon the instruments used.
b) What are the errors in computed results due to arithmetical process and obtain the expression for probable error in each case.
3. a) What are the different methods of adjusting a traverse? Explain any two of them in detail.
b) Explain the working of Tellurometer with the help of a block diagram.
4. a) Explain briefly temporary adjustment of theodolite
b) What are the indirect methods of locating a contour? Explain any one briefly.
5. a) Explain the sources of errors in theodolite work.
b) Determine the constants of tacheometer k and C from basic concepts of stadia method.
6. a) What are the principles objects to be kept in view in selecting the ground for a base line in survey?
b) Enumerate in sequence the operations necessary before the measurement of the base line commences. State the corrections to be applied in base line measurements.
7. a) What is Simpsons rule? Derive an expression for it.
b) The following perpendicular offsets were taken at 10m intervals from a survey line to an irregular boundary line:
3.25, 5.60, 4.20, 6.65, 8.75, 6.20, 3.25, 4.20, 5.65
Calculate the area enclosed between the survey line, the irregular boundary line and the first and last offsets by Simpsons method.