

B.Arch. (Sem.-III) Examination

AR 305

Surveying & Leveling

May-2017

[Max. Marks : 50]

Time : 2 Hours]

- Figures to the right indicate full marks.
- Answer must be precise and up to the points.
- Scientific calculator is permitted but not programmable.

- Q.1
- Enlist types of Chains. 2
 - What are the instruments used in chain survey? How is a chain survey executed in the field? 5
 - Explain in detail various instruments used in leveling. 3
- Q.2
- Convert the following reduced bearing in to Whole Circle bearing.
1) N 30 E 2) S 60 W 3) S 45 E 4) N 20 E 5) S 75 W 5
 - Define Ranging, Explain Reciprocal Ranging in detail. 5
- Q.3
- A 30 m. chain was found to be 0.25 m. too long after chaining a distance of 4800 M. It was found to be 0.55 m. too long after measuring a total distance of 9000 m. At the start of work, the chain was tested and was found to be exactly 30 m. Find correct length of the measured distance. 5
 - Explain in detail temporary adjustment of Theodolite. 5
- Q.4
- Define Surveying and Leveling. 2
 - Enlist Classification of Survey 3
 - What is local attraction? How is it detected and eliminated? 5
- OR**
- Explain with neat sketch prismatic compass and difference between W.C.B. and R.B. 5
- Q.5
- Explain the procedure of measuring and calculating the area of irregular figure by use of Planimeter. 5
- OR**
- Explain in detail Intersection method of plane table survey. 5
 - The following readings were taken with a dumpy level and 4 m. Leveling staff. The instrument was shifted after 3rd reading. Readings are 2.890, 1.755, 1.650, 1.850, 2.125, and 1.675, 1.465 m. enter the reading in a page of level book and calculate the RL of points, if the first reading was taken with a staff held on a benchmark of 100 m. Also apply usual check. 5
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