

PARUL UNIVERSITY
FACULTY OF ARCHITECTURE AND PLANNING
B.Arch. Winter 2019-20 Examination

Semester: 5
Subject Code: 01101304
Subject Name: Surveying and Leveling

Date: 04/12/2019
Time: 10:00 am to 12:00 pm
Total Marks: 50

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever required.
4. Draw suitable sketches wherever required.

Q.1 Define Surveying and Leveling. Explain the objective of surveying, purpose of surveying and uses of surveying. (10)

Q.2 Answer the following (Attempt any five out of six) (20)

- a. What are the two kinds of measurements used in plane surveying?
- b. Define True Bearing and Magnetic bearing
- c. State the Function of reflecting mirror in prismatic compass.
- d. List different instruments for linear measurement
- e. Explain the precaution against errors and mistakes in chain surveying.
- f. Fill in the blanks:
 1. The line connecting equal point of elevation is called_____.
 2. In chain surveying the subsidiary station is denoted by_____ symbol
 3. The length of one link in metric chain is_____.
 4. If the graphical presentation is carried out in small scale is called_____.
 5. The difference between fore bearing and back bearing is _____.

Q.3 Answer the following (Attempt any five out of six) (10)

1. Define briefly: Survey, Bench Mark, Magnetic Meridian, Whole circle Bearing
2. State the Function of reflecting mirror in prismatic compass.
3. State the Principle of Plane table surveying.
4. Describe four Merits and four Demerits of plane Table survey.
5. List the Principle of survey
6. List the types of B.M

Q.4 Explain the following questions briefly. (Attempt any two out of three) (10)

1. State the types of bench marks and state situation where each B.M.is applicable
2. Describe Intersection method of plane table survey
3. State the use of Chain / tape, ranging rod, Peg, Arrows in chaining process.