

PARUL UNIVERSITY
FACULTY OF ARCHITECTURE
B.Arch. Winter 2017-18 Examination

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

Date: 06/12/2017
Time: 2:00pm to 04:00pm
Total Marks: 50

Instructions:

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

Q.1 The following reading was taken with dumpy level and 4m leveling staff, on a continuous sloping ground at common interval of 30m. (10)
 0.855,1.545,2.335,3.115,3.825,0.455,1.380,2.055,2.855,3.455,0.585,1.015,1.850,2.755,3.845.
 The R.L. was 380.500. kindly show check for rise and fall method.

Q.2 Answer the following: (Attempt any five) (20)

1. Explain with neat sketch instruments use in chain surveying
2. Convert the given angles from Quadrantal Bearing to Whole Circle Bearing:
 1. S 34° E
 2. N 56° W
 3. S 63° W
 4. S 45° W
 5. N 65° E
3. Explain objective of surveying, purpose of surveying and uses of surveying.
4. Fill in the blanks (**any four out of five**)
 - 1) If the graphical presentation is carried out in small scale is called_____.
 - 2) The length of one link in metric chain is_____.
 - 3) In chain surveying the subsidiary station is denoted by_____ symbol.
 - 4) The difference between fore bearing and back bearing is _____.
 - 5) The line connecting equal point of elevation is called_____.
5. A length of field is 327meter long . Measured by 20mt chain having a error of 3cm . Find true length of field.
6. List out types of obstacles in chain surveying and explain any two in detail.

Q.3 Brief out the following terminologies: (Attempt any five out of six) (10)

- 1 Bearing of line
2. Bench Mark
3. Base line
4. true meridian
5. magnetic meridian
6. Whole circle Bearing

Q.4 Answer the following:(Attempt any two) (10)

1. Explain the precaution against errors and mistakes in chain surveying.
2. What is scale? Explain method of representing scales.
3. Explain the role of surveying in architecture field.