

GUJARAT TECHNOLOGICAL UNIVERSITY
B.ARCH. - SEMESTER-III EXAMINATION – WINTER 2015

Subject Code: 1035006

Date: 10/12/2015

Subject Name: Surveying & Leveling

Time: 10:30am to 12:30pm

Total Marks: 50

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

Q.1 (a) Define Surveying. Explain its importance for Architects. **03**

(b) Explain difference between Plans and Maps **02**

(c) Fill in the Blanks **05**

- i. 1 meter = _____ feet
- ii. 1 foot = _____ inches
- iii. 1 chain = _____ links
- iv. 1 sq. yard = _____ sq. feet
- v. 1 sq. km. = _____ hectares

Q.2 (a) Draw the neat sketch of the instruments necessary for 'Chain & Tape survey'. Explain their uses. **10**

OR

(a) What are different kinds of Ranging? Explain Indirect Ranging. **10**

Q.3 (a) Explain with sketches, the various instruments used in plane table surveying. **10**

OR

Q.3 (a) Explain the importance of setting out works. **04**

(b) Discuss the method of achieving horizontal and vertical control in setting out works. **06**

Q.4 (a) Convert following WCB to RB **10**

- i. $20^{\circ}30'$
- ii. $90^{\circ}00'$
- iii. $179^{\circ}12'$
- iv. $208^{\circ}42'$
- v. $327^{\circ}03'$

OR

Q.4 (a) Recall contour and mention three uses of contour plan with suitable example. **10**

Q.5 (a) Following bearings were observed with a compass. Calculate the interior angles. **10**

Line	Fore Bearing
AB	$60^{\circ}30'$
BC	$132^{\circ}30'$
CD	$35^{\circ}30'$
DE	$207^{\circ}30'$
EA	$303^{\circ}30'$

OR

Q.5 (a) Draw a contour profile along line AB as shown in figure. Contour Interval 0.25 km

10


