

GUJARAT TECHNOLOGICAL UNIVERSITY
BE - SEMESTER-III(New) EXAMINATION – SUMMER 2016

Subject Code:2130601

Date:02/06/2016

Subject Name:Surveying

Time:10:30 AM to 01:00 PM

Total Marks: 70

Instructions:

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

MARKS

Q.1 Short Questions

14

- 1 In plane table survey, the inaccessible points may be located by
 - a Resection
 - b Radiation
 - c Intersection
 - d Traversing
- 2 U fork and plumb bob are required for
 - a Bisecting
 - b Levelling
 - c Orientation
 - d Centering
- 3 Turning the telescope in the vertical plane about its horizontal axis is called
 - a Plunging
 - b Swinging
 - c Transiting
 - d Both a and c
- 4 If n be the number of lines of a traverse, then the sum of measured interior angles should be equal to
 - a $(2n + 4) \times 90^\circ$
 - b $(2n \times 4) + 90^\circ$
 - c $(2n - 4) + 90^\circ$
 - d $(2n - 4) \times 90^\circ$
- 5 Trigonometric levelling is the Method of levelling.
 - a Indirect
 - b Direct
 - c Relative
 - d Reciprocal
- 6 When the base of the object is accessible, the horizontal distance between the instrument and the object is D , the elevation H is given by
 - a $D \sin \alpha$
 - b $D \tan \alpha$
 - c $D \cos \alpha$
 - d $D \cot \alpha$
- 7 The radius of 1 degree curve is
 - a 1819m
 - b 1718m
 - c 1719m
 - d 1918m
- 8 Shift of the curve is given by
 - a $L^2 / 6 R$
 - b $L / 24 R^2$
 - c $L^2 / 24 R$
 - d $L^2 / 36 R$
- 9 In the trapezoidal formula, the line joining to the top ordinates is assumed to be
 - a Parabolic
 - b Straight
 - c Curved
 - d Circular
- 10 In simpson's rule, the number of ordinates must be
 - a Either odd or even
 - b Odd
 - c Even
 - d In multiple of 3

the chainage zero. The formation width of the road is 7 m and the side slope 1:1. The ground is level transverse to the centre line.

Ch (m)	0	50	100	150	200	250	300
GL (m)	218.0	216.5	216.0	216.75	217.3	217.95	215.65

OR

- Q.5

(a)

Explain float gauge with reference to hydrography.

03

(b)

Describe station pointer.

04

(c)

Explain the procedure of setting out of building foundation.

07
