DR. BABASAHEB AMBEDKAR TECHNOLOGICAL UNIVERSITY,

LONERE

Mid Semester Examination – Oct 2018

Course: S.Y. B. Tech in Civil Engg (I) **Sem: III**

Subject Name:Surveying-II **Subject Code: CV402** **Max Marks: 20**

Date:- 12-3-19 **Duration:- 1 Hr.**

Instructions to the Students:

1.Figures to the right indicate Full marks

2.Assume suitable data wherever necessary

		(Level/CO)	Level	Marks
Q. 1				**6**
1	1. The point on the celestial sphere vertically below the observer's position is called. a) Nadir. b) Pole c) Zenith d) Celestial point.	CO3	C1	
	2. While making astronomical observations, the observer is mainly concerned with a) All b) The directions of the poles of the celestial sphere c)The direction of the star from the instrument d) The direction of vertical axis of instrument.	CO3	C2	
	3. Which of the following is an independent quantity a) Side of a triangle b) Sum of included angles c) R.L of B.M d) R.L of a point	CO1	C2	
	4. The equation which is obtained by multiplying each equation by the coefficient of its un-knowns and by adding the equations thus formed, is known as a) None of these b) Normal equation) Conditional equation d) Observation equation.	CO1	C2	
	5. For mapping any country a)Geodetic triangulation of greatest possible sides and accuracy is	CO1	C1	

carried out

b) Primary triangles are broken down into secondary triangles of less accuracy

c) All

d) Secondary triangles are further broken into third and fourth order triangles, the points of which are used for detail survey.

6.A total station is a combination of: CO5 C2

a) EDM and Theodolite b) Compass and EDM c) Electronic theodolite and EDM d) EDM and electronic compass.

3 X 2

Q.2 Solve Any Two of the following.

(A) What are the different corrections that may have to be applied to base line measurement? CO1 C1

(B) Give the classification of a triangulation system CO1 C1

(C) What are the applications of field astronomy CO3 C2

Q. 3 Solve Any One of the following.

(A) The following observations were taken using a tacheometer fitted with anallatic lens, the staff being held vertically. CO2 C3

Inst. Station	Height of Axis	Staff station	Vertical Angle	Hair readings		
P	1.45	BM	$-6^0 12'$	0.98	1.54	2.10
P	1.45	Q	$7^0 5'$	0.83	1.36	1.89
Q	1.57	R	$12^0 21'$	1.89	2.48	3.07

Determine the distances PQ and QR, and the RLs of P, Q and R.

(B) Find the most probable values of the angles A and B from the following observations at station 'O' CO1 C3

A = $49^\circ 48' 36.6''$ Weight=2

B = $54^\circ 37' 48.3''$ Weight=3

A+B = $104^\circ 26' 28.5''$ Weight=4

***** End *****